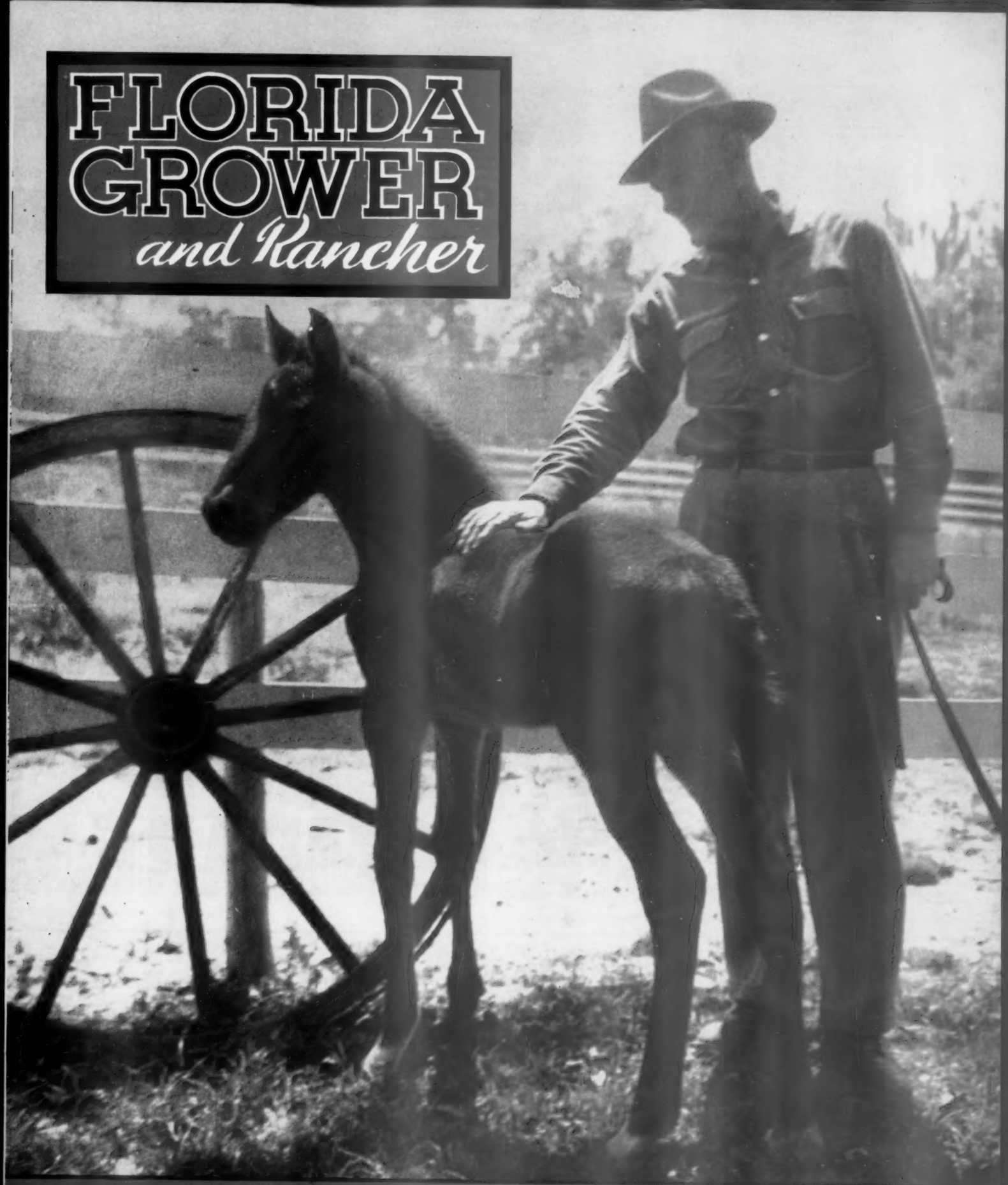
FLORIDA GROWER and Rancher



1959 Florida Field Crop Guide

Tax Problems of Farmers

February 1959
Price 10 Cents

LOOK, COMPARE..

How many of these features does your old tractor have? Check them.

- ☐ **Famous Ferguson Hydraulic System.** Often imitated, never equaled.
- ☐ **Quadramatic Control.** Fingertip control of implements, draft, depth, speed of response.
- ☐ **Safety Starter.** Eliminates a major cause of tractor accidents. Gears must be in neutral so starter will work.
- ☐ **Dual-Range Transmission.** 8 working speeds, 6 forward, 2 reverse.
- ☐ **Power Steering** (optional). One-finger steering at all times, under all conditions.
- ☐ **Two-Stage Clutching.** Halfway down on clutch stops ground travel, PTO continues. All way down stops PTO too.
- ☐ **Foam-Float Seat.** Almost "rocking-chair" comfort to save your back on those long jobs.
- ☐ **Tractormeter.** A glance tells ground, engine, belt and PTO speeds, as well as hours tractor has worked.
- ☐ **Power-Adjusted Rear Wheels.** No danger or straining with jacks and blocks to change rear tread.
- ☐ **3-Point Hitch.** Fast, easy way to mount implements so they become a single unit with tractor. (MF 65 has interchangeable, wrist-action lower links to permit use of *any* 3-point hitch implement.)
- ☐ **12-Volt Battery.** Even in coldest weather, fast starts every time.
- ☐ **Variable-Drive PTO.** Engine speed, ground speed.

Look, Compare... And You'll Be a Massey-Ferguson Man

Ask your Massey-Ferguson dealer about "RED" FOLEY'S $100 CASH AWARD **offer on Ferguson 35 tracto**

APOPKA
Joiner Auto Parts, Inc.
BARTOW
Florida Tractor Co.
BOYNTON BEACH
DeMarco Tractor & Implement Co.
BROOKSVILLE
Troy's Tractor Equipment Co.
BUNNELL
Flagler Truck & Tractor Co.
DeFUNIAK SPRINGS
Blue Motors Equipment Co.
DeLAND
DeLand Tractor & Equipment Co.
FT. LAUDERDALE
Osborne Service & Equipment

AND YOU'LL SWITCH TO A FERGUSON SYSTEM TRACTOR!

How long has it been since you took a good look at your old tractor? Maybe it still runs; but how does it stack up on the new, modern features that save you time, work and money? Just compare it with one of the new Massey-Ferguson tractors with the Ferguson System, and you'll want to trade in your old one right away! One demonstration will prove that a new Massey-Ferguson tractor lets you farm better, more economically, and a lot easier. No other can offer you all the advanced engineering features found only in tractors with the world famous Ferguson System . . . still years ahead of all its imitators. And *right now*, your Massey-Ferguson dealer is making deals you can't afford to pass up. Give him a call today . . . Better still, drop in and see these great Ferguson System tractors for yourself . . . The Ferguson 35, 3-plow power in most soils, the World's Most Copied Tractor . . . The MF 50, the deluxe machine in the 3-plow class . . . And the big, 4-plow MF 65.

Now it's **MASSEY-FERGUSON**

Massey-Ferguson Inc., Racine, Wisconsin

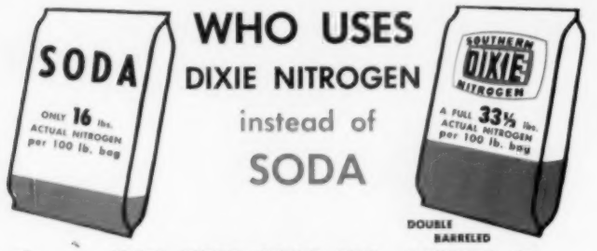
Pace-Setter of Modern Farming . . . World's Most Famous Combines and the Only Tractors with the Ferguson System

If you buy one now you'll get a hundred-dollar check signed personally by "Red," star of TV's "Jubilee U.S.A."

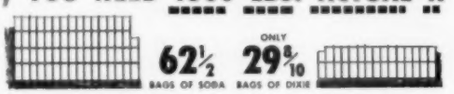
FT. PIERCE
East Coast Tractor & Truck Inc.
LEESBURG
Prescott Motor Service
LIVE OAK
Allbritton Brothers Tractor Co.
MARIANNA
R. L. Hinson Tractor Co.
PLANT CITY
Davis-Carter Tractor Co.
SARASOTA
Tucker-Wilson Tractor & Implement Co.
TAMPA
Walter Spitler Farm Equipment
TRENTON
McCall and Thomas Equipment Co.

The Story of

A SMART FARMER



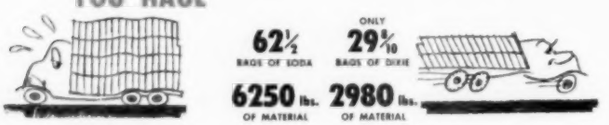
Let's say YOU NEED 1000 LBS. ACTUAL N



YOUR COST IS

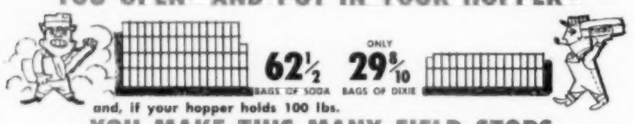
YOU SAVE

YOU HAUL



YOU LIFT

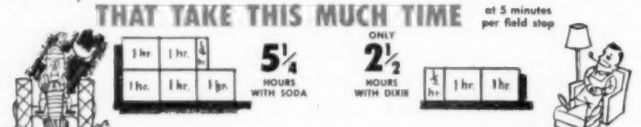
YOU OPEN—AND PUT IN YOUR HOPPER—



and, if your hopper holds 100 lbs.

YOU MAKE THIS MANY FIELD STOPS

THAT TAKE THIS MUCH TIME at 5 minutes per field stop



YOU SAVE 2 HOURS AND 45 MINUTES WITH DIXIE

WHY SIDEDRESS THE HARD-WORKING, HIGH-COST WAY?
USE THE SOUTH'S
OWN DIXIE NITROGEN
YOU'LL SAVE MONEY
TIME AND WORK
DIXIE IS MADE IN DIXIE—
FOR DIXIE FARMERS

It is produced by
THE SOUTHERN NITROGEN CO., INC.
P. O. BOX 246 • SAVANNAH, GEORGIA

The Cover . . .

This month's picturesque cover shows Earl Rutledge of Tampa and "Sunrise Surprise," a Tennessee Walking colt. Mr. Rutledge is the father of Robert W. Rutledge, general manager of Florida Citrus Mutual, Lakeland.

The younger Rutledge owns both the colt and its mother, Princess Bubbles Flora Dora. He snapped the cover picture during one of his father's visits to Lakeland.

Horse ranching is on the increase in Florida, especially in the central portion. Many breeders have recently moved to this state since the discovery of its adaptability for such operations.

Contents . . .

Smaller Containers for Citrus 9
Year-Round Forage
Vital in Ranching Program 11
1959 Florida Field Crop Guide 13
Plant Field Corn
Following Vegetables 15
Tax Problems of Farmers 17
Citrus Close-Ups 23
Citrus Insect Control for
Spring 1959 24
Agricultural Outlook 34
Farm Home Section 36-39
Florida Farm Market Page 40
Editorial: Let's Reorganize Our
Department of Agriculture 42
Florida Poultry Section 45-47
Good Plans for Good Buildings 50

COMING EVENTS

Feb. 3-14: Florida State Fair, Tampa.
Feb. 18-22: Kissimmee Valley Livestock Show, Kissimmee.
Feb. 20-22: Silver Spurs Rodeo, Kissimmee.
Feb. 23-28: Central Florida Fair, Orlando.
Feb. 24-28: Pinellas Fair & Horse Show, Largo.
Feb. 25-27: Suwannee River Fair & Livestock Show, Fannin Springs.
Mar. 2-7: Florida Strawberry Festival, Plant City.
Mar. 2-7: Volusia County Fair, DeLand.
Mar. 3-8: Sugarland Exposition, Clewiston.
Mar. 4: Florida Hereford Show & Sale Quincy.
Mar. 7-14: Florida Citrus Exposition, Winter Haven.
Mar. 9-14: Lake County Fair & Flower Show, Eustis.
Mar. 16-21: Sarasota County Fair, Sarasota.

How smart are YOU?

1. What language is spoken by more people than any other language?
2. In proportion to its size, what has the largest brain?
3. What does *c.* before a date mean?
4. Do alligators live all their lives with their original teeth?
5. What is *fine* gold?
6. Is there sand under the deepest part of the ocean?
7. Why is dead foliage not waist-deep in a tropical forest?
8. Are the finger prints of any two people ever identical?
9. What is wrong with plants suffering from *chlorosis*?
10. In what metal were the first U. S. coins minted?

(Answers on Page 10)

TAMPA, FLORIDA — FEBRUARY, 1959

Vol. LXVII, No. 2—Whole No. 1337
(Established 1908)

FLORIDA GROWER AND RANCHER
Published by
FLORIDA GROWER PUBLICATIONS, INC.
HARRIS H. MULLEN, *Publisher*
THOMAS J. HUGHES
Agricultural News Editor
ALICE TOMPKINS
Feature and Layout Editor
BARBARA CLENDINEN, *Home Editor*
WALTER E. ANDERTON
Advertising Manager
JOHN L. LIPPE
Promotion Manager
LUCILLE LUCAS
Circulation Manager
Member Audit Bureau of Circulations

Issued Monthly by FLORIDA GROWER PRESS, CHARLES G. MULLEN, JR., *President*. Entered as Second Class Matter Feb. 3, 1911 at the Post Office at Tampa, Florida, under act of March, 1879

National Advertising Representatives
PECK & BILLINGSLEA
185 N. WABASH AVE., CHICAGO, ILL.
BILLINGSLEA & FICKE
420 LEXINGTON AVE., NEW YORK, N. Y.
McDONALD-THOMPSON
SAN FRANCISCO DENVER LOS ANGELES
SEATTLE HOUSTON TULSA
PORTLAND, OREGON

Subscription Rates
In United States, 1 year, $1.00; 3 years, $2.00; 5 years, $3.00; 7 years, $4.00
All Foreign Countries, 1 year, $2.50
Send subscriptions to
P. O. Box 2350, Tampa, Florida

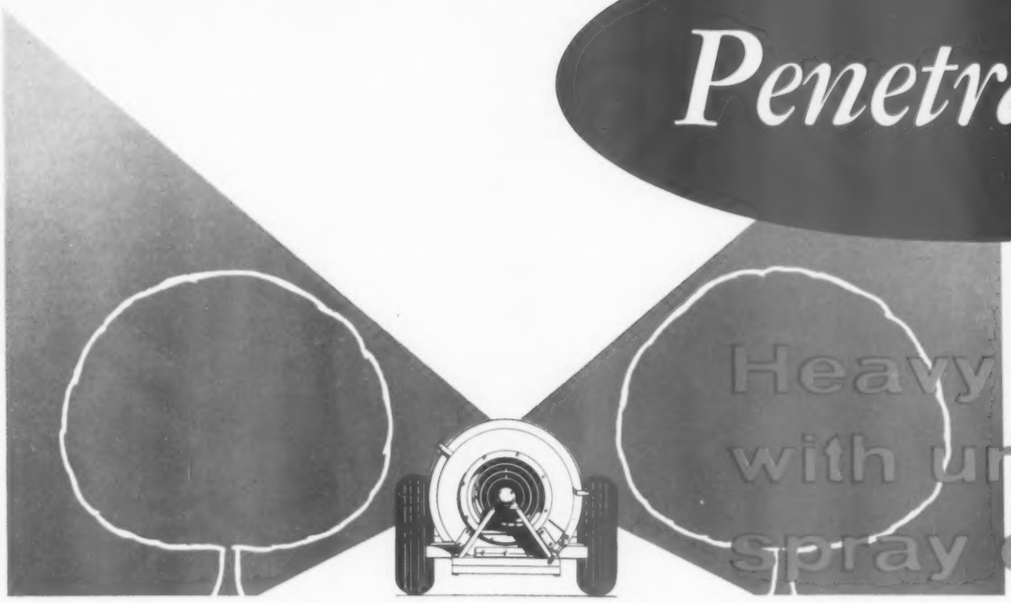
Other Magazines Published by
Florida Grower Publications:
FLORIDA TREND—FLORIDA PURCHASER

"All right, Mom—I'm coming."

Too many people who have passed their driving tests think they can pass anything.

The Florida Citrus Commission collected over $6 million in excise advertising taxes in 1957-58.

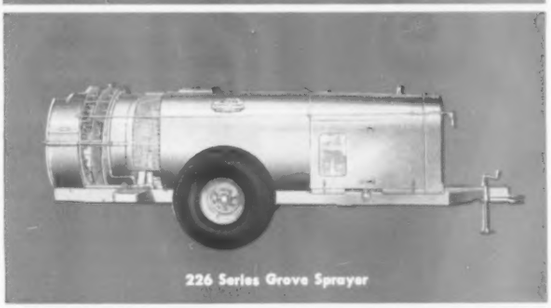
Penetrates...



Heavy foliage with uniform spray coverage

Saves...

232 Series Grove Sprayer



226 Series Grove Sprayer

High Pressure Grove Sprayer

Time, Labor and Operating Costs

Myers Grove Sprayers do a better job for less.

In grove spraying it's penetration that counts. Myers sprayers give you the air power needed to carry protective spray chemicals into the densest foliage. You get uniform coverage, complete coverage, of every tree from trunk to top.

You spray more trees in less time. Myers air sprayers feature one man operation, easier handling, longer trips between tank fillings.

See for yourself

Ask your Myers dealer to demonstrate the full protection, coverage, and cost saving advantages of a Myers grove sprayer.

for a complete line of spraying and irrigation equipment. **Myers**

The F. E. Myers & Bro. Co.
ASHLAND, OHIO KITCHENER, ONTARIO

Liming Counteracts Effects of Aluminum in Florida Soils

RECENT STUDIES of aluminum in Florida soils have uncovered another good reason for liming soil used for producing agricultural crops.

Dr. J. G. A. Fiskell, associate biochemist with the Florida Agricultural Experiment Stations, says the study of aluminum in Florida soils—started about a year ago—has led to some findings that every farmer and grower should understand.

All soils contain rather large amounts of aluminum. And this can be toxic to growing crops.

Plant roots encounter aluminum in the soil as they feed on fertilizer and other nutrients. If the aluminum level is too high, reduced crop yields will result.

However, says Dr. Fiskell, there is a way to prevent aluminum toxicity to crops. Phosphate acts to reduce the trouble.

But the most economical remedy is the use of lime, which has long been recognized as necessary for the control of soil acidity. Lime contacts most of the top soil where crops grow, and it changes the aluminum to forms less actively available to the plant roots.

Even with a good fertility program, the aluminum level is merely kept in check. When plant food nutrients decrease, aluminum becomes a factor likely to cause poor yields.

The lower yields may be the result of poor root systems caused by aluminum, which result in poor use of water. Or they may result from aluminum actually preventing the plant nutrients from being used properly by the crop.

A good soil fertility program and proper liming will maintain good yields, Dr. Fiskell says.

* * *

10 Research Fellowships For Graduate Study

ONCE AGAIN, the Ralston Purina Company will award 10 research fellowships for the coming (1959-60) school year.

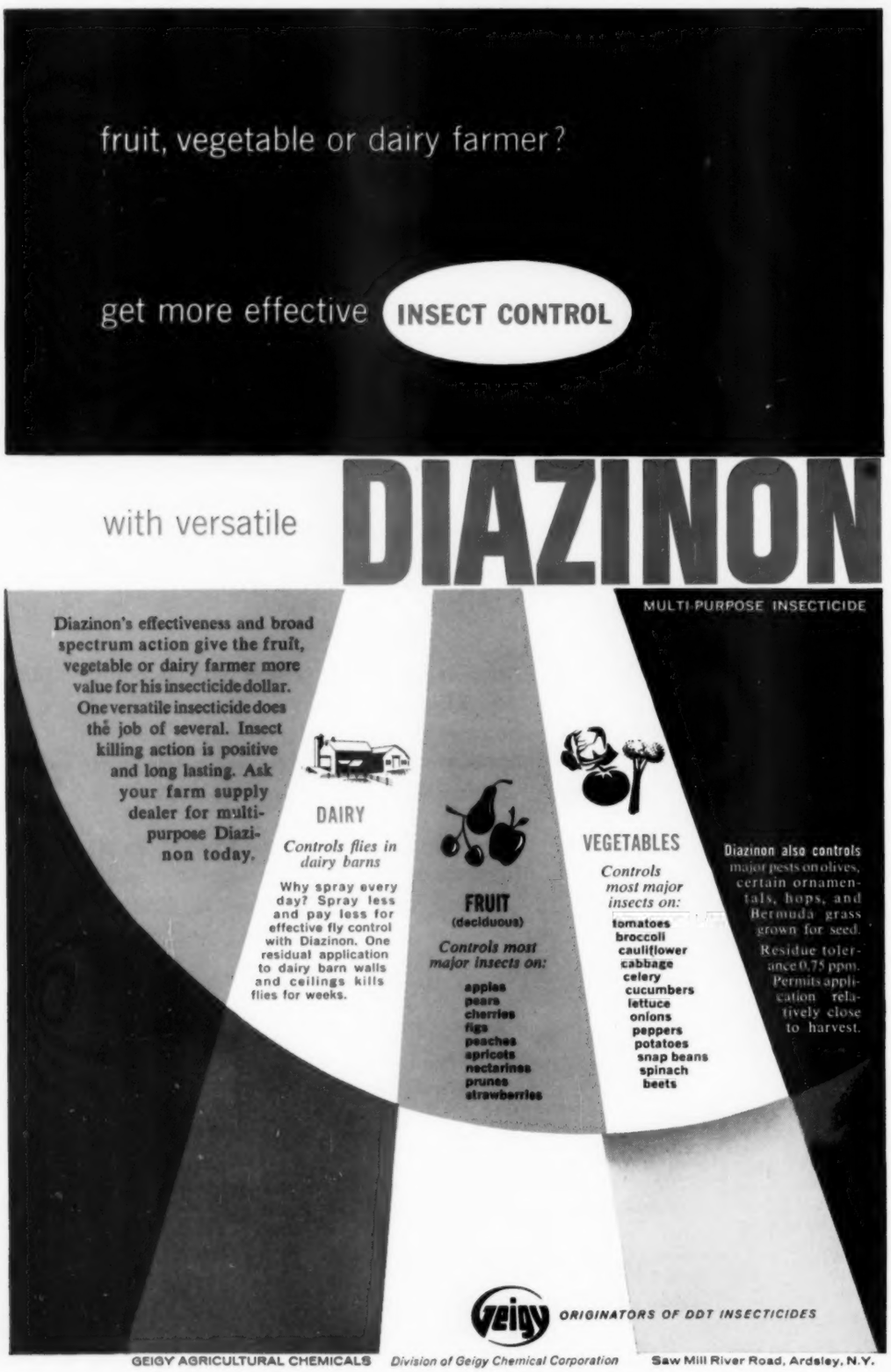
Awards will be made in the fields of (1) nutrition and physiology research as applied to dairy, poultry and animal husbandry, and (2) research in transmissible diseases of livestock and poultry.

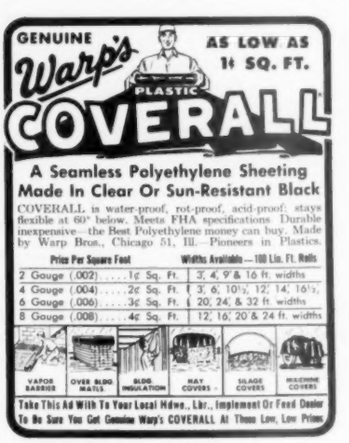
Individuals must be qualified for graduate study in a land-grant agricultural college or approved veterinary college, possess desirable personal qualifications, and submit a complete application in order to be eligible for a fellowship.

March 1, 1959 is the deadline for submitting applications. Each fellowship is in the amount of $1,800 annually.

Research fellowships will be awarded on an annual basis. The recipient of an award may be eligible for appointment not to exceed a tenure of three years.

Fellowship application blanks may be obtained by writing: The Ralston Purina Research Awards Committee, J. D. Sykes, Ralston Purina Company, St. Louis 2, Missouri.


fruit, vegetable or dairy farmer?
get more effective INSECT CONTROL
with versatile DIAZINON
MULTI-PURPOSE INSECTICIDE
Diazinon's effectiveness and broad spectrum action give the fruit, vegetable or dairy farmer more value for his insecticide dollar. One versatile insecticide does the job of several. Insect killing action is positive and long lasting. Ask your farm supply dealer for multi-purpose Diazinon today.
DAIRY
Controls flies in dairy barns
Why spray every day? Spray less and pay less for effective fly control with Diazinon. One residual application to dairy barn walls and ceilings kills flies for weeks.
FRUIT
(deciduous)
Controls most major insects on:
apples
pears
cherries
figs
peaches
apricots
nectarines
prunes
strawberries
VEGETABLES
Controls most major insects on:
tomatoes
broccoli
cauliflower
cabbage
celery
cucumbers
lettuce
onions
peppers
potatoes
snap beans
spinach
beets
Diazinon also controls major pests on olives, certain ornamentals, hops, and Bermuda grass grown for seed.
Residue tolerance 0.75 ppm. Permits application relatively close to harvest.
Geigy ORIGINATORS OF DDT INSECTICIDES
GEIGY AGRICULTURAL CHEMICALS Division of Geigy Chemical Corporation Saw Mill River Road, Ardsley, N.Y.


GENUINE
Warp's
PLASTIC
COVERALL
AS LOW AS 1¢ SQ. FT.
A Seamless Polyethylene Sheeting
Made In Clear Or Sun-Resistant Black
COVERALL is water-proof, rot-proof, acid-proof; stays flexible at 60° below. Meets FHA specifications. Durable inexpensive—the Best Polyethylene money can buy. Made by Warp Bros., Chicago 51, Ill.—Pioneers in Plastics.
Price Per Square Foot
Widths Available—100 Lin. Ft. Rolls
2 Gauge (.002) ... 1¢ Sq. Ft.
4 Gauge (.004) ... 2¢ Sq. Ft.
6 Gauge (.006) ... 3¢ Sq. Ft.
8 Gauge (.008) ... 4¢ Sq. Ft.
3, 4, 9' & 16 ft. widths
3, 6, 10½, 12, 14, 16½, 20, 24, & 32 ft. widths
12, 16, 20 & 24 ft. widths
VAPOR BARRIER
OVER BLDG. MATLS.
BLDG. INSULATION
HAY COVERS
SILAGE COVERS
MACHINE COVERS
Take This Ad With To Your Local Hdwe., Lbr., Implement Or Feed Dealer To Be Sure You Get Genuine Warp's COVERALL At These Low, Low Prices

For Larger Melon Yields, Space Closer in the Rows

SPACE watermelons closer in the rows and get larger yields, advises L. H. Halsey, assistant horticulturist with the Florida Agricultural Experiment Station.

Halsey says a spacing-fertilization rate trial conducted last spring indicated more watermelons per acre could be obtained by crowding plants close together when adequate fertilizer and sufficient moisture were present.

Due to the incomplete nature of a one-year trial, Halsey warns, this test is in no way conclusive.

In the trial, watermelons were spaced three feet and 12 feet apart in the rows and fertilization was applied at the rates of 500 pounds and 2,000 pounds per acre.. All rows were 10 feet wide.

Results of the test show:

Almost one-third again as many watermelons of marketable grade were obtained when plants were spaced three feet apart in the row at a fertilization rate of 500 pounds per acre.

When the fertilization rate was increased to 2,000 pounds per acre, more than twice as many watermelons were produced at the three-foot spacing. Halsey's data refer only to those disease-free melons weighing more than 17½ pounds each.

These data show watermelons obtained from the three-foot spacing averaged 22.2 pounds when the fertilization rate was 500 pounds per acre. Melons from the 12-foot spacing in this phase of the trial weighed an average of 23.2 pounds.

On plants receiving 2,000 pounds of fertilizer per acre, the melons from the three-foot spacing averaged 22.8 pounds. Those from the 12-foot spacing averaged 23.9 pounds.

Even though the test is not conclusive, Halsey feels the cost of producing the increased number of watermelons (due to the closer spacing of plants and higher fertilization rate) could be considerably more than overcome by an increase in crop sales.

This would result in a reduction in cost per melon, with a consequent increase in net returns per acre.

By producing a higher yield per acre, Halsey points out, growers would also make more land available for other crops.

* * *

Herbicide Brochure

An illustrated brochure which describes the various applications of the selective pre-emergence herbicide Eptam is now available to all farmers.

Included are detailed outlines of the crops (food, forage, ornamentals) on which Eptam can be used advantageously and the types of weeds controlled by the herbicide. Descriptions are also provided of the most efficient application methods—broadcast, band, pre-emergence, and post-emergence.

Free copies of the Eptam brochure may be obtained from Stauffer Chemical Company, 380 Madison Avneue, New York 17, N. Y.

* * *

Cultivation of the earth is the most important labor of man. When tillage begins, other arts follow.

SNO MUD * MILITARY TIRE
ALL NYLON

NEW FIRST LINE FACTORY FRESH

750x20 10 ply	$36.00
750x20 12 ply	42.00
825x20 10 ply	46.00
825x20 12 ply	52.00
900x20 10 ply	60.00
900x20 12 ply	68.00

Plus Federal Excise Tax

25% Deposit, Balance C.O.D.

Freight Prepaid In Lots of 4 Or More

EAGLE TIRE COMPANY
3216 N.W.N. RIVER DRIVE
MIAMI, FLORIDA
DEPT. FG
NEWTON 4-1962 & NEWTON 4-1710

BEGINNING JANUARY 18th . . .

NEW UNIQUE

Freight Service "JACKSONVILLE To NEW YORK"

-- with Refrigerated Sea-going Trailers

Savings begin the instant Sea-Land's refrigerated trailer-truck picks up citrus cargo at your door. No extra packaging, no marking or stencilling! Once loading is complete, trailer doors are sealed and desired temperature maintained to destination. Cargo never moved or scattered. No handling! No damage! Ship either trailer load or special LTL handling. Also ideal for any kind of freight. Attractive, continuous schedules. Door-to-door delivery with expedited service. Contact Sea-Land for *proven* savings.

SEA-LAND SERVICE
A McLean Industries Company
PAN-ATLANTIC STEAMSHIP CORPORATION
Foot of Doremus Avenue, Port Newark, N. J.

JACKSONVILLE
EL 6-0081
Pier 3
Talleyrand Ave.

TAMPA
2-7711
York & 13th Sts.

MIAMI
Foot of N.E. 12th St.
FRanklin 3-5583

MAJOR SAVINGS IN CITRUS CARGO because...

— your refrigerated shipping container

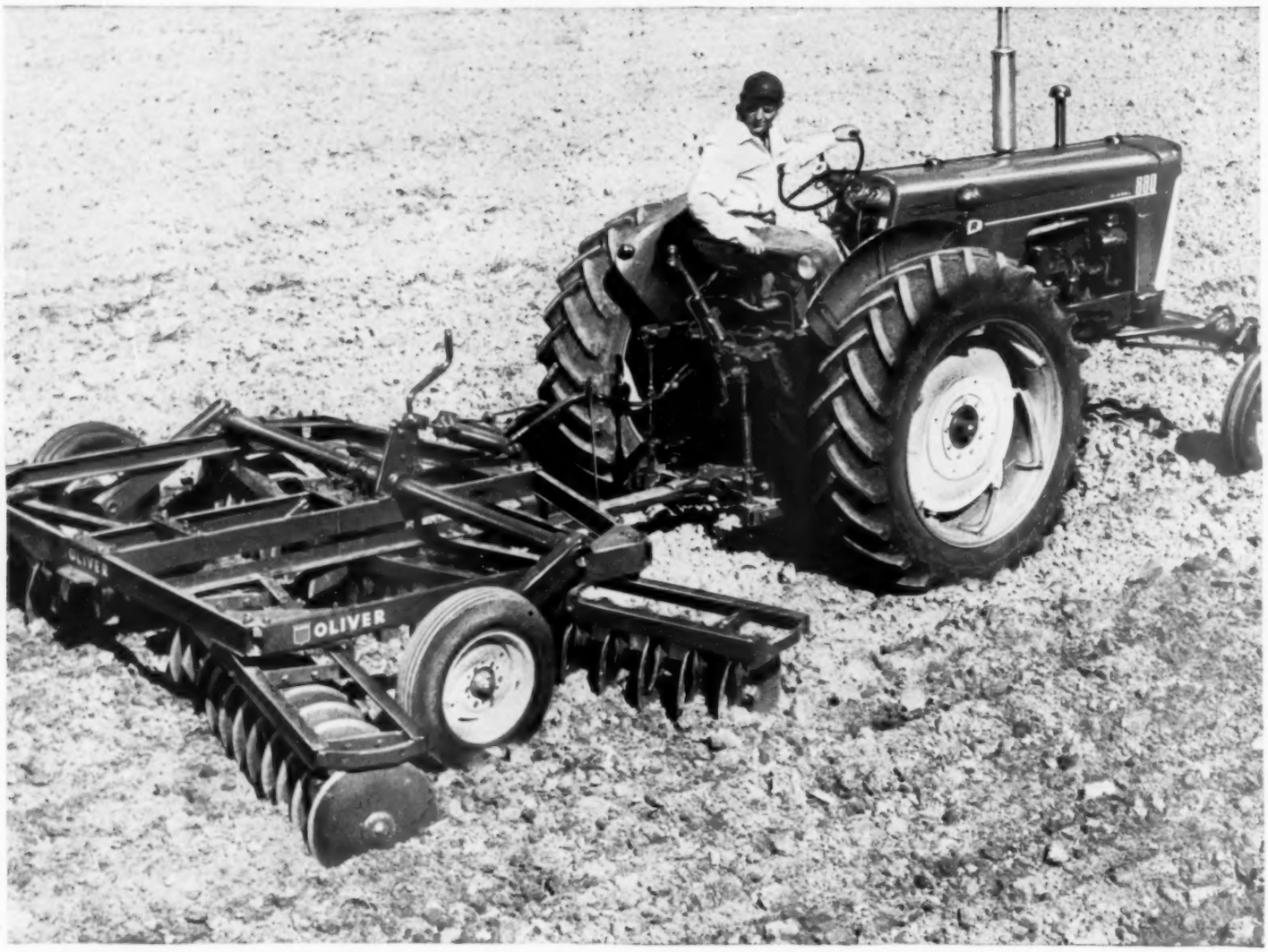
— becomes your trailer

— goes via smooth waterway savings

— and via truck delivery to destination

Hitch the most useful Row-Crop power to the most flexible heavy-duty disc

You've got TEAMED-POWER



THE TRACTOR is the Oliver 880—recognized for economy and smooth 6-cylinder power. And what useful power it is. With Oliver's Power-Booster Drive, you pour on extra pull at the flick of a lever. Patented "Hydra-lectric" controls take *all* the work out of most implement settings so fast and so easily! Your drawbar raises and lowers with Oliver's Power-Traction Hitch—to the ground for implement hooking-on, then up to your best working level—all at the touch of your hydraulic controls. Then there are power steering and Powerjuster rear wheels if you wish. Picture yourself hitching all this power to...

THE DISC—the new, heavy-duty, semi-flexible Oliver. Here you'll find *weight* and *flexibility* in perfect ratio—the weight you need for penetration...the flexibility to smooth out uneven ground. You have sealed bearings throughout, no lubrication needed ever...and you've always got plenty of clearance to shake off trash—widths all the way from 7-foot-7 to 16½ feet. And controls! They're fast and easy—a simple crank for leveling, and tractor seat hydraulics for depth.

The 880 tractor—smooth, 6-cylinder gasoline or full diesel... the 241 disc. What a pair they make! Prove it for yourself: there's nothing like Oliver's TEAMED-POWER.

THE OLIVER CORPORATION, 400 West Madison Street, Chicago 6, Illinois

See Your OLIVER DEALER and See

Trend. Seen. Toward. . . . . Smaller. Container. for Citrus

By NORBERT F. LAVIGNE

THE DAYS of the big box for carrying fresh Florida citrus to market seem to be numbered.

Nothing official may happen this season. But all signs point to Florida shippers using a much smaller unit as a standard for their operations when the 1959-60 harvest gets underway.

The new standard container probably will be 4/5 bushel in size. This would be exactly half of the present basic box which holds 1 3/5 bushels.

Or the new container could be even smaller, 7/10 bushels—half the size of the 1 2/5 bushel container California still uses for statistical purposes even though shipping almost all of its orange crop in the half-size unit.

Florida's Citrus Commission has the legal authority to establish the 4/5 or 7/10 bushel unit as the standard for shipping and pricing purposes. It is preparing to poll both the Florida industry and the people who handle Florida fruit in the market for their opinions on the proposal.

Ballots will be mailed out about April 1 to approximately 300 Florida fresh fruit shippers and handlers and to some 4,000 retailers, wholesalers, brokers and others who handle Florida fruit after it is shipped.

Although the ballot does not pin down the exact size, it does ask the shipper or handler whether he favors using the large or small box as the basis for shipping and pricing purposes.

(The "large" box is the present standard unit of 1 3/5 bushels; the "small" box is described as one of "approximately 4/5 bushel.")

What the Commission does about the proposed change in standards for containers will depend, of course, on how this voting turns out.

Statistics on the current season's operations are reflecting the trend toward increasing use of a smaller container for shipping fresh Florida citrus.

These figures show that through November, 66% of all the fresh citrus shipped from Florida this season went out in the small container. This compares with 48% for the same period last season.

When tangerines are excluded from the figures, the increase is even more pronounced for oranges and grapefruit:

Up to December 1 of this season, 60% of all fresh oranges and grapefruit was shipped in the smaller box. This is half again as much as last season to the same date, when the smaller units had carried only 40% of the shipments.

Rightfully, tangerines should be excluded from such a comparison; they have been shipped in the 4/5 bushel container for many years. This trend is nothing new so far as this variety is concerned.

The change from the big to the little box is in line with other industry moves for streamlining and mechanizing its fresh fruit operations, to bring that part of the business more closely in line with the automation which has long been employed by the frozen concentrate and other processed product manufacturers.

Currently, automatic machines are available for filling the 4/5 bushel corrugated container. The exact number of fruit, according to the size, is fed into each box as it moves along in true assembly-line fashion.

A few shippers are pre-cooling their fruit with ice water (hydrocooling.) This new method of preparing fruit for market is being closely watched.

Preliminary reports indicate the hydrocooling has been highly successful in its prime purpose of keeping fruit in excellent condition throughout its trip to market and into the grocery store.

Some of the industry's leaders state frankly that, in their opinion, the big box is doomed and that the only uncertainty is when the transition will take place officially.

J. Dan Wright, Jr. of Sanford, general manager of the Patrick Fruit Company and a member of the Florida Citrus Commission, makes no bones about expressing his belief that "the big box is through and everybody agrees that it is."

Frank Arn, merchandising director of the Commission, makes a strong argument in favor of the smaller basic box for fresh Florida citrus as a result of visits to several terminal markets during a series of trade luncheons. While in the various markets, he talked with scores of handlers about the container situation.

Labor unions are creating a situation calling for a smaller fruit container, Arn declares. He explains:

"Stevedores are allowed to pick up only so much weight, and some union rules now require the use of two men in handling Florida's present standard citrus box.

"The smaller container is coming," Arn maintains, "so the industry might as well face it."

Dan Wright says that all the handlers he talked with during a recent trip to Philadelphia and New York are entirely agreeable to the idea of a smaller box. He adds:

"It would cost $12 less to unload a car with the smaller boxes because union labor regulations require an upcharge where anything heavier than 55 pounds is handled."

(When filled with oranges, the present standard Florida box of 1 3/5 bushels weighs 90 pounds; when filled with grapefruit, 85 pounds.)

The ultimate solution, in Wright's opinion, will be the approval of a 7/10 bushel container, or one-half of the 1 2/5 bushels box. Such a container, he believes, could be either corrugated fibreboard or wirebound.

"Such a container," Wright emphasizes, "should not be known as half of anything; it should be known as the *industry's basic unit* itself."

Arn says California led the way in using a small, easily-handled container. The trade, he believes, would welcome standardization of containers for California, Texas and Florida "so when they buy a 'box' of citrus fruit, it will mean the same thing from all three states."

Not too many years ago, Florida's best fruit went to market in a heavy, all-wood box. While this gave the contents excellent protection, it was also expensive.

Indian River shippers, who concentrate on quality, used the all-wood 1 3/5 bushels standard nailed box a long time after it had been practically abandoned by shippers in other parts of the state.

As crops grew larger and had to be sold at a lower price per box, the economy of lighter-type containers became important. So the wire-bound box came into greater and greater use.

More recently, use of corrugated containers has been expanding. This is because of the excellent protection afforded fruit and a lower cost.

Some shippers are using the 4/5 bushel corrugated carton to carry hydrocooled fruit. Much of this fruit is packed in five- or eight-pound polyethylene or other type bags.

One of the disadvantages of the present large boxes, according to Arn, is the damage done to fruit when the boxes are "dropped on their end, which happens invariably in the stores. The damage is not nearly so severe with the smaller half-size container."

W. G. Strickland, assistant general manager of the Florida Citrus Exchange and a veteran in the business, is convinced most industry leaders feel the big box will soon be obsolete.

Little advantage and quite a few disadvantages to changing the basic unit were recently seen by W. C. Pedersen, prominent industry man and president of Waverly Growers Cooperative.

Originally, Pedersen's remarks were made when the talk revolved around lowering the basic box from 1 3/5 to 1 2/5 bushels. He hasn't as yet said how he feels if the change goes all the way to the 4/5 or 7/10 bushel unit.

Pedersen reminded the industry that the proposal to cut a fifth of a bushel off the standard box "has been brought up time and time again, but has always been turned down as not being practical.

"Florida's citrus industry has become the largest and most profitable in the world while using the 1 3/5 bushel size standard box.

"To change the size of our box to a smaller one now would increase the government estimate 12.5%; in a normal year of 140 million boxes, it would mean the reports would show 17.5 million more boxes to be marketed. This would have a depressing effect on the market.

"Every time a product is put into a smaller container," Pedersen continued, "it raises the cost of handling charges. This, in turn,

(Continued on Page 19)

this John BEAN SPRAYER . . .

is BUILT IN FLORIDA with

all the features

FLORIDA GROWERS WANT

RUGGED HIGH PRESSURE PUMP—Fully enclosed and oil-bath lubricated, John Bean's Royal Triplex pump has Sapphite ceramic cylinders that last a life time, even with concentrates. Cylinders are diamond-honed for minimum wear on plunger cups. 20 to 60 GPM models — 600 to 800 lbs. pressure. Thorough spray coverage; fast, 90 GPM or better tank refills.

DEPENDABLE V-BELT DRIVE—No expensive chains or sprockets to wear out.

CORROSION-RESISTANT CYPRESS TANK—Chemical proof, leak free: 200-300-400-500 gallon sizes. *Metallized* steel tanks optional—the most corrosion resistant ever developed.

HEAVY-DUTY BOOM—Heavy steel, dry boom has double-action breakaway. Nozzles and downpipes furnished by your John Bean dealer to fit your needs exactly.

HI-CLEARANCE AXLE—Has 36" to 48" height adjustment, 64" to 84" tread.

John Bean's Florida Row-Crop Sprayer has an unmatched record for efficiency and low-cost maintenance throughout the state. Write to Orlando Factory for full details. Demonstrations given without obligation.

Send for new Handy Calculator for figuring concentrate or dilute spray solutions. It's free.

Thinking of Irrigation?

YOU'LL GET MORE RETURN ON YOUR INVESTMENT FROM A SYSTEM THAT IS ENGINEERED and REGISTERED

REGISTERED SPRINKLER IRRIGATION SHUR-RANE

Designed and installed by hydraulics experts to fit your land, your crops and your water supply exactly, your SHUR-RANE system is engineered for more profitable yields. It's registered, too . . . to make additions easy and to keep you informed of new irrigation developments.

For complete details, write or call the SPEED SPRAYER PLANT, ORLANDO, FLORIDA OR SEE YOUR NEAREST DEALER

fmc FOOD MACHINERY AND CHEMICAL CORPORATION

John BEAN LANSING 4, MICHIGAN ORLANDO, FLORIDA

Division of Food Machinery and Chemical Corporation

How smart are you

(Answers to Questions on Page 4)

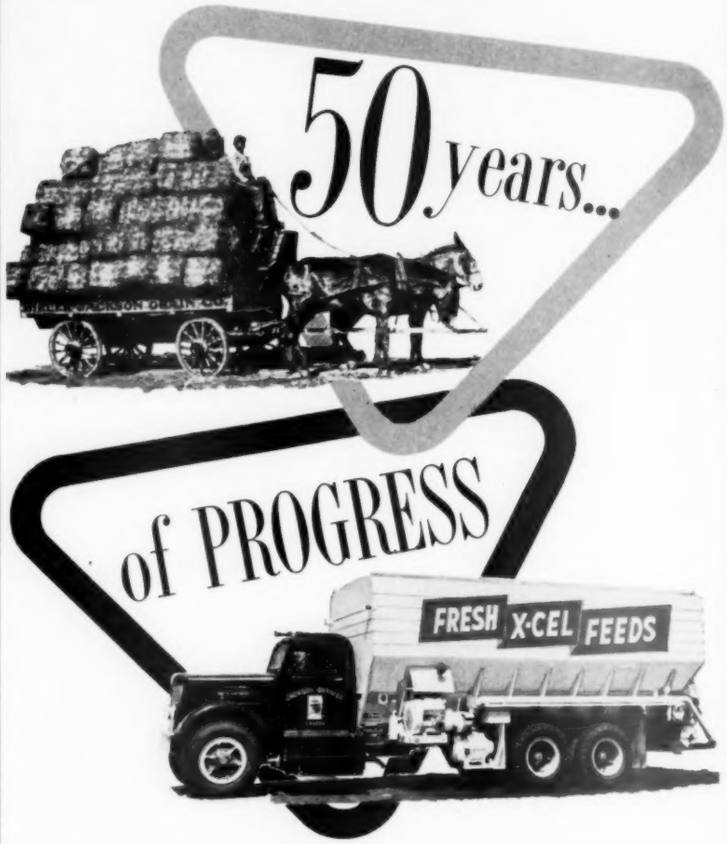
1. *Chinese (including dialects); English is second.*
2. *The ant.*
3. *Circa (about, approximately).*
4. *No. Some alligators have as many as 40 sets of teeth.*
5. *Pure gold.*
6. *No. Under pressure of great depths, a silt ooze is formed.*
7. *Because bacterial action destroys dead vegetation very quickly.*
8. *No.*
9. *They are diseased due to malnutrition, from the lack of iron. The leaves become yellow and stunted.*
10. *Copper.*

, , ,

Expert: A person who can tell you something you already know and make it sound complicated.

, , ,

Nothing cooks a man's goose faster than a red hot temper.



Thanks to you-

OUR CUSTOMERS!

For a half-century we have been proud to serve Florida—and to supply you, our customers with feeds, insecticides and fertilizers tailored to your requirements.

No only are we grateful for the chance to help you with your needs and problems but we promise to continue our efforts to make your work more profitable.

X-Cel products will always be tailored to Florida farming and represent the latest developments of proven research. Write us today—your friendly X-Cel man is ready to help you make more money.

THERE'S AN X-CEL PRODUCT FOR EVERY FARMING NEED

X-CEL SINCE 1909 **JACKSON GRAIN CO.**

● FEEDS ● SEEDS ● FERTILIZERS ● INSECTICIDES

TAMPA, FLORIDA

Year-Round Forage Vital in Ranching Program

FLORIDA CATTLEMEN LISTENED with eager ears as Dr. W. G. Kirk (far right), Vice Director in Charge, explained to Field Day visitors the variety of work being studied at the Range Cattle Station, Ona.

By THOMAS J. HUGHES

"DO NOT overstock your pastures," Dr. W. G. Kirk, Vice Director in Charge of the Range Cattle Station, Ona, told some 550 cattlemen at a recent Field Day.

"Overstocking pastures means partial starvation for cattle during some seasons of the year. This materially reduces the productivity of the herd and lowers resistance to disease and parasites."

Carefully stocked pastures, he continued to reiterate proven facts, result in a 75 to 85% calf crop with calves averaging 400 pounds or more with good grades at weaning.

"Moderately stocked pastures will give a larger weaning calf crop with less trouble and lower cost than can be obtained on overstocked pastures," the station head stated.

Pasture forage is basic, Kirk reminded the cattlemen. Ranchers should plan and follow a year-round pasture program that includes the use of high yielding varieties of grass and clover to furnish a long grazing season with some forage for hay and silage. This will require regular fertilization as well as rotational and deferred grazing.

Culling was cited as a good cure for overstocking. Cull until your estimated forage supply is sufficient for the number of cattle left.

Supplemental feeding when pastures are of good nutritional quality keeps animals in condition to produce good calves.

Protein supplements are usually needed. Legume pastures can be used to supply a part of the shortage for this purpose.

Because supplements are expensive, use those locally available —and only as long as the condition of the pastures demand it.

Calves should be born at the most favorable period of the year, usually January to March, weaned at 7 to 8 months and given extra care the first winter.

Markets should be watched and cattle sold when they will bring the largest net returns.

Keep strains of cattle that give the highest net return under the feed conditions and management practices followed on the ranch.

Last winter's combination of freezing temperatures and above average rainfall placed maximum stress on improved pastures. The following are pointers observed from this unusual winter.

Water did more damage to pastures than the cold.

A reserve of hay or silage is essential for a herd largely dependent on improved pastures the year round.

Very little grass or clover growth occurs in weather that is too cold for personal comfort.

Pangola damage was severe with recovery delayed until July 1st. Cultivation of injured sods did little, if any, good and burning was harmful.

Some adjustment of acreage may be needed where pangola makes a high percentage of the pasture. But its productivity is essential where fertilizer is a major expense.

Testing of grasses and legumes was discussed by Dr. J. E. McCaleb, assistant agronomist. His findings were as follows:

With good fertilization and management, pangola is the most productive grass. Giant pangola has not been a good producer. Leesburg #5 is a slender stemmed-selection which may be useful under special conditions.

Pensacola, Argentine and Common Bahias are now used for experimental grazing. The first two are comparable in yield and are superior to Common. Pensacola is more cold resistant than Argentine and Common.

Coastal and Suwannee Bermuda grasses have not proven to be as productive as Pangola or Pensacola and/or Argentine bahiagrass; however, both are of proven value and do well in some sites in central and south Florida.

Louisiana white clover is the most productive cool season legume in central Florida. Two selections, Nolan's improved and S-1, are slightly more productive than the common white grown from field run seed.

Floranna sweet clover is more productive than Hubam in the Ona area. Israel, a new introduction showing promise throughout the southeastern U. S., was highly susceptible to fusarium wilt at the Range Cattle Station and Immokalee last winter.

Hairy Indigo is a successful crop in well drained areas for late summer to early winter grazing and to supply soil nitrogen for grass growth. Seed production is adequate to maintain a stand when properly managed.

The alfalfas have been grown in plots and grazing areas but damage by disease and extremes of wet and dry weather make this legume an uncertain crop for general use in central Florida. Other legumes have been planted at the station, but they failed to establish and maintain a stand.

Dr. McCaleb concluded by stressing the need for cool-season grasses and warm-season legumes which will provide succulent and nutritious forage to fill the gap now existing in the year-long production program.

Fertilizers provide the best opportunity for a rancher to improve his pasture returns, station agronomist E. M. Hodges declared. He pointed out:

"Efficient production and skillful utilization must be obtained if pasture and forage fertilization is to pay off in dollars and cents. A fertilizer that combines with the soil to furnish all elements needed by the growing plant is balanced."

Low nitrogen treatment rates are not sufficient to produce high yields while pastures lacking either phosphorus or potash use nitrogen to poor advantage.

Minor element additions, mainly copper, have increased the value of pangola, bahia and other pasture varieties. Most pasture soils require not only fertilizer, but lime as well, in order to have a plant food and chemical balance.

Clover has a high potash requirement while grasses need extra nitrogen for heavy production. Pangola produces the most return per unit of fertilizer at moderate to high application rates with orderly management.

Bahia pastures are less productive than pangola. However, they suffer less damage from overgrazing, trampling during wet weather, and neglect of fertility requirements.

Proper timing of fertilizer application is important to obtain maximum value of the feed produced.

Nitrogen application produces a flush of grass growth within 30 days to not more than 60 days. This knowledge can be used to avoid surpluses of forage in the spring and early summer and to increase supplies at other seasons subject to weather limitations.

"The time a calf is weaned is the most critical point of its life. They should be fed so as to gain at least one-half pound per day following weaning."

So ranchers were told by F. M. Peacock. He continued:

"A successful program for wintering calves should enable them to fulfill growth requirements and remain in a thrifty condition. Fat calves will usually lose condition while thin ones improve."

Since stocking calves through the first winter is a general practice in the cattle business, the question arises as what is the cheapest method to obtain the most satisfactory performance. Trials are presently underway to determine:

Amount of feed needed in addition to winter pasture to obtain different rates of gain, and effect of rates of gain on feed lot performance immediately following.

The results of the first phase is only an indication of what can be expected.

On low quality bahiagrass pasture, one pound of TDN beyond maintenance requirements will give approximately one-third pound of gain.

Increasing TDN to three and four pounds above maintenance needs gave a TDN gain ratio to approximately four to one for calves at the Station.

THE MILLER AMENDMENT
...what it means to you

THE MILLER AMENDMENT to Public Law 518 sets limits on the amount of insecticide residues permissible on harvested crops. The Food and Drug Administration has established tolerances for *each* insecticide on *each* crop. Crops coming to market with excess residues are subject to confiscation.

For insect control during the critical close-to-harvest period without residue problems, many states are recommending malathion sprays or dusts. They can be used on many crops up to 72 hours from harvest; on beans up to 24 hours . . . on all others, up to 7 days. Here's why: malathion kills fast, thoroughly. Its residues disappear rapidly. And, it has a high residue tolerance on most crops. All together, these features make malathion the ideal material for late season insect control.

Leading aphicide. Many states recommend malathion as the leading aphicide. It also gives fast, thorough kills on these other vegetable pests: beetles, leafhoppers, mites and worms. This wide use range helps growers eliminate multiple mixings, sprayings.

With malathion, no respirator needed.

Offers safety in use. Unlike most other phosphate insecticides, malathion can be handled safely without respirator or special protective clothing. The USDA calls malathion, " . . . one of the safest insecticides to handle." And the U. S. Public Health Service says, ". . . the toxicities of malathion (oral and through the skin) are less than those of DDT."

Compatible with other chemicals. Malathion is compatible with most other commonly used fungicides and insecticides.

For a free Malathion Handbook listing uses, rates, timing, etc., write: American Cyanamid Company, Agricultural Division, New York 20, New York.

Another service advertisement on

CYANAMID

MALATHION
INSECTICIDES

1959 Florida Field Crop Guide

By J. R. HENDERSON
Agronomist
Florida Agricultural Extension Service

The greatest improvement in yields of harvested crops or in carrying capacities of pastures results from the wide-scale use of a combination of better varieties and better liming and fertilization programs.

COMPARISONS of the 1958 acreage, yield and production figures for major Florida field crops against those of 1948 or 1949 reveal some interesting changes during the last decade.

In 1958, acreages were smaller for some crops, about the same for others, and larger for still others. But in all cases, the *yields per acre* were higher last year than 10 years earlier.

Florida farmers in 1958 produced 140% more corn on 8% fewer acres; harvested 56% as much cotton on 69% fewer acres; picked and threshed more than two-thirds as many pounds of peanuts on less than half as many acres; sold almost as many pounds of flue-cured tobacco on 32% fewer acres, and harvested almost three times as much hay on slightly fewer acres than in 1948.

The acreage of oats harvested in 1958 was approximately six and one-third times that of 1949, but the total 1958 production was almost eight and one-half times as large. Similarly, the acreage of soybeans harvested for beans in 1958 was seven and two-thirds that of 1949; the total production, almost 10 times that of 1949.

Yields per acre in 1958, expressed as percentages of those in 1948 or 1949, were as follows: Corn, 260; oats, 169; hay, 291; cotton, 177; peanuts, 142; tobacco, 148, and soybeans, 125.

Except for cotton, the yields per acre equalled or exceeded previous records.

Progress in improvement of yields, indicated by the above figures, has resulted from wider use of improved production practices. In some cases, better programs for control of insect, nematode and disease pests have contributed.

But in almost all cases, the greatest improvement in yields of harvested crops or in the carrying capacity of pastures has resulted from use on a wider scale of a combination of better varieties and better liming and fertilization programs.

We hope that improvement can be continued. Toward this end, variety, liming and fertilization recommendations for production of field crops in Florida in 1959 are presented and discussed in the paragraphs below.

Varieties

A FIELD CROP MAY INCLUDE several species within a genus or several varieties within a species, or it may consist of a single species with no recognized varieties.

In choosing the kind of crop to be grown—whether at the genus, species, or variety level—the following should be kept in mind:

Growth cycle; growing season; adaptation to soils and climate; uses of the crop; yield and quality of the harvested products; resistance to insects, diseases and nematodes.

Recommended species and varieties are listed, usually in order of preference, and partially described in the following outline.

CORN

A. Central, northeastern and northwestern Florida[1]:
   1. Long-season hybrids for cribbing, hogging-off, or making silage:
      a. Yellow: Fla. 200; Dixie 18; Lee; Jackson.
      b. White: Coker 811.
   2. Short-season hybrids for hogging-off early:
      a. Yellow: U. S. 13; Funk G-134; Funk G-50.
      b. White: none.

B. Southern Florida[1]:
   1. Long-season hybrids for cribbing, hogging-off or making silage:
      a. Yellow: Cornell 154; Funk G-740.
      b. White: Rocamex H-503.

Dixie 18 for the past decade has been the standard long-season yellow hybrid for central, northeastern and northwestern Florida. It produces high yields, stands up well, and has good weevil resistance.

Florida 200, which is similar to Dixie 18 in standability and weevil resistance, produces slightly higher yields than Dixie 18. Lee is similar to Dixie 18 in standability and weevil resistance but produces slightly lower yields.

In the last two years of testing in Florida, Jackson produced slightly higher yields than Florida 200 but was somewhat poorer in standability and weevil resistance.

On the basis of only one year of testing, the new Coker hybrids—67 (yellow), 71 (yellow), and 811A (white)—appear worthy of trial.

U. S. 13, which matures about two weeks earlier than Dixie 18, is the highest yielding short-season tested to date in Florida. Funk G-50 yields slightly less than U. S. 13. Although Funk G-134 has not been tested in Florida, it appears to produce higher yields than Funk G-50.

Under most conditions, none of the short-season hybrids yield as well as the long-season hybrids. Because of lower yields and higher susceptibility to damage by insect and ear-rot organisms, the acreage planted to short-season hybrids should not be larger than required to supply feed until the long-season hybrids are ready for use.

COTTON

A. Upland: Plains; Auburn 56; Smith 78; Dixie King; Coker 100 Wilt; All-in-One.
B. Long Staple: Sealand 542; Coastland Sea Island.

Coker 100 Wilt has been the most popular variety of upland cotton in Florida for many years. It and all of the other upland varieties recommended are wilt resistant, have good staple length, and produce high yields.

Sealand 542 is the most popular long-staple variety. But Coastland Sea Island, which the mills seem to prefer, is being planted by some growers of long-staple cotton.

PEANUTS

A. Runner: Dixie; Early.
B. Spanish: Dixie; GFA.

Dixie is the most popular variety of runner peanuts among Florida farmers, but the acreage of Early Runner has increased each of the last three years. Early Runner produces higher yields and matures ten days to two weeks earlier than Dixie Runner.

Both of the above varieties have good dormancy. Either may be harvested for market at maturity or hogged-off over long periods following maturity.

The Spanish varieties are of little importance in Florida.

Interest in Virginia type (large) peanuts, among growers of small acreages, for roasting or boiling, has increased rapidly in the last few

(Continued on Page 20)

[1]For the purpose of these recommendations, the boundary between central and southern Florida is a line extending eastward from the southwest corner of Hillsborough County to Vero Beach.

Harvest more No. 1's

Protect crops from diseases with this wide selection of Du Pont fungicides

CROP	DISEASE	USE THIS DU PONT PRODUCT FOR SUPERIOR CONTROL
Tomatoes	Late Blight • Early Blight • Gray Leaf Spot Septoria Leaf Spot Anthracnose	Manzate® *maneb fungicide*
	Botrytis (*gray mold*)	Thylate® *thiram fungicide*
Potatoes	Blights (*early and late*)	Parzate® *liquid nabam fungicide* or Parzate® *dry zineb fungicide* or "Manzate"
Celery	Blights (*early and late*)	"Parzate" *Liquid* or "Parzate" *Dry* or "Manzate"
	Early Blight • Rhizoctonia (*in celery-plant beds*)	"Thylate"
Beans—Snap and Field	Rust	"Manzate"
	Rust and Anthracnose	"Parzate" *Dry*
Beans—Lima	Downy Mildew	"Manzate"
	Downy Mildew and Anthracnose	"Parzate" *Dry*
Cucurbits	Anthracnose Downy Mildew Most Leaf Spot Diseases	"Parzate" *Liquid* or "Parzate" *Dry* or "Manzate"
Peppers	Leaf Spots Anthracnose	"Parzate" *Liquid* or "Parzate" *Dry*
Crucifers	Downy Mildew Alternaria Leaf Spot	"Parzate" *Liquid* or "Parzate" *Dry* or "Manzate"
Watermelons	Anthracnose Downy Mildew Gummy Stem Blight	"Parzate" *Dry*
Gladiolus	Rust • Botrytis Curvularia Stemphylium Leaf and Flower Spots	"Manzate" or "Parzate" *Liquid* or "Parzate" *Dry*

Du Pont offers Florida growers the widest selection of products available for the most effective control of major fungus diseases. Du Pont "Manzate" maneb, "Parzate" in nabam and zineb formulations and "Thylate" thiram are all fungicides with outstanding records of performance in low-cost disease control. All are mild in action, easy to use, and are fully registered for use in Florida. For profit-boosting yields, ask your dealer today for the Du Pont fungicide best suited to your needs.

• • •

And to control weeds, soil fungi and nematodes, use Du Pont VPM

soil fumigant

You can avoid hand-weeding costs, disturbing of plants and loss from damping off fungi and nematode injury in the crops listed (left) and other vegetables seeded for transplanting by fumigating with Du Pont VPM, the soil fumigant that requires no gas-tight cover.

• • •

GLADIOLUS GROWERS: For the control of certain weed seedlings such as crabgrass, purslane, pigweed, wild mustard, shepherd's-purse, and lamb's-quarters in gladiolus plantings, Du Pont Karmex® diuron weed killer is recommended.

On all chemicals, always follow label instructions and warnings carefully.

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

In South Florida,

Plant Field Corn Following Vegetables

CORN FERTILITY PLOTS are inspected by Dr. A. E. Kretschmer Jr. The plot in the foreground received no nitrogen; that in the background received 120 pounds of N per acre. Other elements were obtained from residues left in the soil from the preceding fall tomato crop.

By
ALBERT E. KRETSCHMER, JR.
and NORMAN C. HAYSILP*

FIELD CORN is a good crop to follow fall tomatoes and other highly fertilized vegetable crops on the sandy soils of south Florida for the following reasons:

In the first place, no phosphorus, potash or minor elements need be applied. There is enough left in the soil from the previous crop if it received 2,500 pounds or more of 4-8-8 per acre.

Secondly, the soil is in good physical conditions and weeds are at a minimum.

Thirdly, water control conditions generally are favorable.

And finally, the practice fits nicely into the vegetable-grain-pasture rotation program being developed by research workres at the Indian River Field Laboratory. It means that an extra crop can be grown between the vegetable and improved pasture phases without materially affecting the rapidity of the grass establishment.

In fact, the pasture grass can be sprigged into the sides of the corn beds at the time the corn is "laid by." In this way, the grass will become established as the corn grows to maturity and it will be ready to graze when the corn is harvested.

Most fall tomato crops are finished by January 15. Between February 1 and March 15 is an ideal time to plant field corn in south Florida.

Generally, climatic conditions are favorable at that time. Also, insect and weed buildups are usually at a minimum.

The tomato beds should be leveled with a disk and the corn seeded immediately following the tomato crop. This rapid changeover to corn will permit better utilization of residual fertilizer, and will prevent the establishment of insects, weeds, and grasses.

Corn should be planted on low beds spaced about 42 inches apart. If the soil surface is dry, seed should be planted about three to four inches deep to insure better germination. The deeper seeded corn also is more difficult for birds to pull up.

Plants should be nine to 12 inches apart in the row. However, closer spacing may not be detrimental to production.

Tops of the raised beds should be concave, using a sweep just ahead of the planter. In this way, excess water will seep into the furrows between the beds and moisture from light rains will concentrate in the seed zone.

During the growing season, the corn should be cultivated at least once by throwing the soil toward the corn plants, covering weeds and grasses in the drill. Generally this is sufficient.

Cultivation should take place when the corn is about knee-high, or earlier if weeds become a problem. Thus not only will weeds in the corn row be covered by soil, but also the cultivation will cover the fertilizer that should be applied at this stage.

A sweep plow does a very effective cultivation job. It also leaves smooth furrows that permit rapid flow of water from surface irrigation when necessary.

Planting corn on low beds or on the level is satisfactory in periods of moderate rainfall.

Should heavy rains come, there is less damage to plants in beds because of better drainage. Also, irrigation is made easier by the bed method since it is possible to run water between the rows.

If a drought develops just before the corn tassels, irrigation is a necessity for high yields. It is at this time that the most critical moisture period for corn occurs.

Fertilization tests conducted in 1952, 1953 and 1956 showed that maximum corn yields following fall tomatoes can be otbained with nitrogen fertilizer alone. No response was obtained from potash or phosphate additions.

In most seasons, about 120 pounds of nitrogen per acre should be sufficient for maximum yields. More nitrogen was required in 1956 because of the unseasonal heavy rains.

About 40 pounds of nitrogen per acre should be applied at planting. The remainder should be applied at one or two side-dressings, depending upon rainfall.

The only advantage that two side-dressings might have, compared to one, would be under conditions of heavy leaching rains when less nitrogen would be lost because of the smaller application rate. The first (or only) side-dressing should be applied when the corn is about knee-high; the second, about 10 days to two weeks later.

Little can be done to stimulate the growth or yields of field corn with fertilizers after it reaches waist-height.

For the past three seasons, in-the-row spacing experiments have been conducted following fall tomatoes. A standard 42-inch between rows spacing was used.

Both 1956 and 1958 were much better seasons for corn production than 1957, when heavy leaching rains occurred during the growing season.

It might be of interest to note that a tornado in the spring of 1958 blew all the corn to a horizontal position when it was slightly above knee-height. About a week later, the corn was growing erect once more and yielded well.

From spacing trials, it is obvious that the closer spacings are better during seasons of high production. During bad seasons, it doesn't appear to make much difference whether the corn is planted seven inches or 12 inches apart.

More corn stalks were found to lodge or break when planted seven inches apart. Ear length varied from 5.1 inches to 5.7 inches with increasing spacings in 1957, and from 5.7 to 6.9 inches in 1958.

Spacings in the row of from nine to 12 inches appears to be satisfactory with the closer spacings being used when good culture, spray and water control practices are followed.

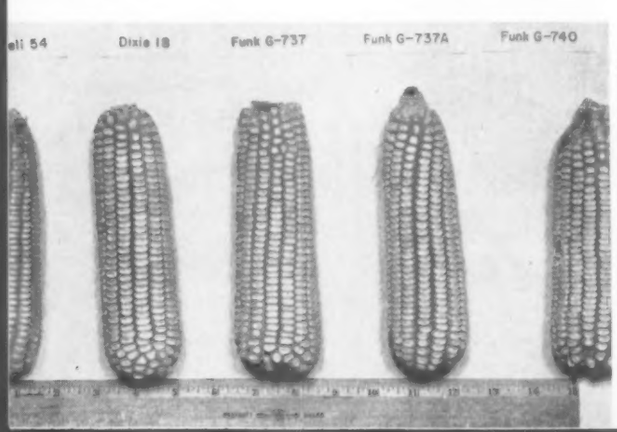
With respect to adaptable varieties, the Indian River area is unique. Varieties grown successfully in Gainesville, in the Everglades and further south yield equally well in this area under certain conditions.

Three-year varietal yield results indicate that Funk G-740 yielded somewhat more than some of the other varieties in 1957 and 1958. Corneli 54, Dixie 18 and Funk G-737A yielded equally well; Cueto 56, a promising relatively new introduction from Cuba, produced a good yield.

Corneli 54 and Cueto 56 produced good quality corn, having firmer ears that appeared to be somewhat less susceptible to sideworm damage than Funk G-740. Dixie 18 and Funk G-737A produced poorer quality corn.

Furthermore, Corneli 54 and Cueto 56 were somewhat more resistant to *Helminthosporium turci-*

(Continued on Page 44)



SEVERAL CORN VARIETIES tested at the Indian River Field Laboratory. At present, Corneli 54 or Funk G-740 are suggested for commercial production in the Indian River area.

*(Respectively associate agronomist and entomologist, Indian River Field Laboratory, Fort Pierce.)

The performance leaders in the field pay you best in the orchard and grove

ALLIS-CHALMERS D-SERIES TRACTORS

You've read about the side-by-side tractor tests that prove the wide margin by which D-Series Tractors lead the field. They topped the other most popular tractors — in work turned out — in fuel saved.

Now you can have this big advantage in fully shielded orchard power. The combination of shielding you want — complete or partial — is available for field installation on Allis-Chalmers D-14 (36.65 hp) and D-17 (54.43 hp) Tractors.

Power Director speeds your work with 8 speeds forward . . . shifts on-the-go for 42% more pull in low range, 50% more work capacity in high range. **Two-Clutch Power** CONTROL keeps PTO-driven sprayers operating at full capacity regardless of forward motion. **TRACTION BOOSTER** system transfers weight automatically to tractor drive wheels as needed for heavy going. **SNAP-COUPLER** hitch saves time and trouble when switching from job to job.

This is the **new look** in earning power for the orchard and grove. Combine it with the full range of Allis-Chalmers western-built tillage equipment and you'll do more work at low cost. See your Allis-Chalmers dealer — today.

ALLIS-CHALMERS, FARM EQUIPMENT DIVISION, MILWAUKEE 1, WISCONSIN

TRACTION BOOSTER and SNAP-COUPLER are Allis-Chalmers trademarks.

ALLIS-CHALMERS

Listen, *National Farm and Home Hour — every Saturday — NBC.*

One Chemical Application Controls Witchweed in Corn

Weed and nematode control of witchweed in corn may be possible with one chemical application.

At the Whiteville (North Carolina) USDA station, Nemagon soil fumigant was broadcast at four gallons of actual per acre for witchweed control. The treated plot produced 70 bushels of corn per acre; the untreated plot produced only witchweed.

Why Gamble with your crops— and profits

Magnesium deficiency in citrus, and vegetable crops as well, can be most costly —both in quality and quantity of yield. For citrus, why not follow the recommendations of the Florida Citrus Experiment Station at Lake Alfred which stress the need for large applications of magnesium for citrus in soluble form and state that it is usually applied as a sulphate.

Play safe with BERKSHIRE'S EMJEO*

(80/82% Magnesium Sulphate)

For many years this dependable source of soluble magnesia has been a favorite primary plant food of Florida growers—along with nitrogen, phosphorus and potash. Used in combination with Muriate of Potash, it is usually more economical than other forms of potash and magnesium.

Act now...
specify fertilizer that contains EMJEO

Be sure that your fertilizer manufacturer includes EMJEO in your mixtures as a dependable and economical source of soluble magnesium.

*Trade Mark Reg.

Berkshire Chemicals
INC.
630 Third Avenue
New York 17, N. Y.

Sales Offices: New York • Chicago
Philadelphia • Cleveland • Boston
Pittsburgh • San Francisco

Income tax tip: Good records can save time and money because

Farmers Face Special Problems

By DR. C. C. MOXLEY
Agricultural Economist
Agricultural Extension Service

MOST FARMERS have tax problems that do not involve the average tax payer.

Unlike most wage earners, they do not have taxes withheld from their income; also they do not know what the profit from farming will be until the end of the year. Too, there are parts of the Federal Income Tax Laws which apply specifically to farmers.

Farmers, like most other tax payers, must pay taxes based on the amount of net income earned. They are not required to pay tax on money which is necessarily spent in the earning of that income.

However, many problems arise in determining the amount of income to be reported and the expenses to be deducted by farmers.

Dates and forms: If at least two-thirds of your gross income is from farming and your tax year starts January 1, you have two choices.

You may file your return and pay the entire tax on or before February 15, 1959. Or you could have filed an estimate of the tax and paid this amount by January 15, 1959; then you must file the final return and pay any balance due by April 15, 1959.

A farmer *must* use Form 1040. He is not allowed to use Form 1040-A.

Schedule "F" is used to determine the farm profit or loss from the itemized sources of farm income and farm expenses. It is designed for use by farmers filing on either the cash or accrual basis.

Schedule "C" is used to compute the profit or loss from a non-farm business or profession. It will be used by farm people having a business in addition to farming.

Form 1040-ES is used by those who declare an estimate of tax. Remember: if an estimate was not filed by January 15, the final return is due on or before February 15.

No one type of record book is prescribed by the Internal Revenue Service. The books used, however, should systematically reflect the income, deductions, credit, and other matters required to be shown on the returns.

Good records can mean dollars in income tax savings, social security benefits, and management of the farm business. The record system should be organized to fit the method of reporting income tax that is found to be most favorable for the individual.

The most commonly used accounting system is the 'cash receipts and disbursements' method. Under this system, all taxable income—whether received in cash or property—is listed in the year received. Expenses incurred in producing farm commodities are deductible only in the taxable year in which they are paid.

Farmers who are likely to sell two or more years' production in one year sometimes use the 'accrual' accounting method. Under this system, farm income is included in income for the year in which it is earned—regardless of when payment is received. Changes in inventory values of livestock, crops, produce, feeds, etc., during the taxable year are considered equivalent to increases or decreases in income.

Unlike the cash method, complete inventories at the beginning and ending of the year are required for reporting on the accrual method. Under the accrual method, farm expenses are deductible in the taxable year in which incurred, whether paid or not.

Over a period of years, the accrual method may allow a smaller tax outlay for some men. This is because taxes are progressive, and because a more uniform taxable income is shown than under the cash method.

Yet, on the other hand, the cash method has certain advantages. These include more simplified record keeping. When using the cash method, proceeds from livestock and crops are not included until received and inventories are not needed to determine income.

Once an accounting system has been established, the taxpayer may not change it without the consent of the Commissioner of Internal Revenue.

Regardless of the method of accounting used, entries should be kept up to date and properly identified. Since expense transactions often occur more frequently than income, carelessness in record keeping could cost extra tax dollars when some of the numerous expense items (see list at bottom of page 18) are overlooked or forgotten.

In addition to income and operating expenses, purchases of capital items (such as machinery and livestock held for breeding and dairy purposes) should be recorded. Without a record of the cost of these items, the depreciation allowance cannot be determined.

Also, records on capital assets and depreciable property used in the farming business are necessary to compute gains and losses from the disposition of such items.

Depreciation: The purpose of depreciation deduction is to permit the investment in depreciable property to be deducted during the useful life of the property.

The deduction for depreciation on Schedule "F", Form 1040, is allowed only for property used in the business. These depreciable items include farm buildings other than the owner's dwelling, machinery, equipment, livestock held for dairy or breeding purposes, fences and drains, autos and trucks.

In figuring depreciation, it is necessary to determine (1) the useful life of each item on your depreciation schedule and (2) the basis for depreciation.

Usually, the basis of any property is cost. If the property is materially improved, the additional costs are added to the basis.

Federal law allows you to use any reasonable and consistent method of computing depreciation. The three methods most generally used are (1) the straight line method, (2) the declining balance method, and (3) the sum of the years-digits method.

The straight line method has been used most extensively by farmers. Under this method the cost, less salvage value, is deducted in equal annual amounts over the period of the property's estimated useful life.

For example: A piece of equipment costing $2,000, having a salvage value of $100, and which is expected to last 10 years would be depreciated $190 each year.

With the declining balance method, no salvage value is deducted before depreciation is started. The rate used may be twice that for the straight line method for the same length of time, but the rate is applied each year to the undercovered cost.

If, for example, the property cost $2,000 and is expected to last 10 years, the first year's depreciation would be 20% of $2,000 or $400. The second year, the depreciation would be 20% of $1,600 (the undepreciated balance.) The procedure continues with the depreciation cost decreasing each year.

Primary disadvantage of this method is that it leaves a small amount near the end of the depreciation period. However, the government will allow you to change to the straight line method to recover the total cost of the items, less any salvage value.

The main advantage of this method is for those who plan to trade equipment at regular intervals and who want high depreciation soon after purchase.

The sum of the years-digits method gives almost the same results as the declining balance method. And it has the additional advantage of allowing complete recovery of cost less depreciation at the end of the depreciation period.

Under this method, the salvage value is deducted from the cost of the equipment before depreciation is first calculated. Thus, deducting a salvage value of $100 from a $2,000 item leaves $1,900 to

(Continued on Page 18)

ON GUARD for your crop dollars

Let Swift's experts solve your pest control problems. You take a vacation from worry when you call on Swift's Growers' Advisory Service—a group of highly trained and experienced specialists who know Florida crops and conditions. In addition to Swift's extensive research facilities, these men are constantly working with other growers whose pest control problems are similar to yours.

Swift's Growers' Advisors use GOLD BEAR pesticides, manufactured by Swift in Florida for local conditions.

GOLD BEAR pesticides are made to rigid high-quality specifications and include the latest proved insect killers as well as the best of the old reliables. It is Swift's policy to bring you improved products as soon as they are proved scientifically and economically sound.

Swift's Growers' Advisors will make regular inspection of your crops. They have access to pesticides for controlling all Florida insects. Their knowledge and experience is second to none. Call on them. It's a service you can't buy at any price—but you can have it free of charge.

CONTACT ONE OF THESE FIELD REPRESENTATIVES:

R. V. Albritton
110 S. Pine St., Sebring
Ph. EVergreen 54551

J. W. Gray
Winter Haven
Ph. CYpress 3-5413

L. D. Alderman
Box 36, Wimauma
Ph. 472864 (Tampa)

J. H. Hale
West Palm Beach
Ph. TEmple 3-1855

W. P. Bass
2506 Center, Orlando
Ph. 5-8081

C. C. Helms
Box 922, Homestead
Perrine, CEdar 52920

P. J. Driscoll
Box 333, Clermont
Ph. EXeter 4-5401

Richard S. Pike
Box 124, Vero Beach
Ph. JOrdan 7-2375

J. M. Fennell
3344 Nuna Ave.,
Tice, Ph. Edison 7-6681

P. M. Schaill
115 S. Charleston Ave.
Fort Meade, Ph. 4-4151

G. B. Garrard
830 E. Stuart, Bartow
Ph. 2-7511

W. V. Webb
3607 Corona St., Tampa
Ph. 64-5043

E. L. Wood
1022 S.W. 4th Ave.
Gainesville
Ph. FRanklin 6-7064

Swift's GOLD BEAR BRAND PESTICIDES

AGRICULTURAL CHEMICAL DIVISION
Winter Haven • Pompano Beach, Florida

Swift 104TH YEAR

WHEN YOU'RE FARMING TO MAKE MONEY, SWIFT'S YOUR FINEST BUY!

Income Tax Tips

(Continued from Page 17)

which the depreciation rate would be applied.

The depreciation rate each year is a fraction whose numerator is the number of years of life remaining for the property. The denominator is the number representing the total of the numbers of the years of useful life in the property.

For example: If the property is expected to last 10 years, the denominator (or bottom part) of the fraction is the sum of the numbers of 1 through 10 (1 plus 2 plus 3 plus 4, etc.), which equal 55.

Accordingly, the depreciation for the first year would be 10/55ths of $1,900; the second year, 9/55ths of $1,900; the third year, 8/55ths of $1,900, and so on. The depreciation the last year would be 1/55th of $1,900.

Once you have selected a method of depreciating a particular piece of property, you may not change the method of computing depreciation on this particular item without the consent of the Internal Revenue Service.

However, there is one exception: You do not need permission to change from the declining balance method to the straight line method at any time during the life of the property. But once you have changed to the straight line rate, you may not change back without getting permission.

The sum of the years-digits method or the declining balance method, using twice the rate of straight line depreciation, may be used only on property having a useful life of three years or more and which you acquired new after December 31, 1953.

For used property, the maximum declining rate is one and one-half times the straight line rate.

Regardless of the method of depreciation used, you cannot deduct in one year the depreciation that you should have taken—

(Continued on Page 30)

Check List of Farm Expenses

Do not deduct the personal part of expenditures which are partly personal and partly farm business. Deduct only the business part.

In general, the farmer may deduct from gross receipts all expenditures directly connected with the farm business except those which represent capital investments. The latter generally may be recovered through depreciation.

Labor Hired
Day labor
Season and year labor
Piecework
Cash outlay to board hired labor

Feed Bought
Grain
Other concentrates
Pulp
Feed mixing hired
Hay
Other roughage

Seeds and Plants Bought
Corn
Oats
Rye
Wheat
Other grains
Legumes
Grass
Vegetables
Seed mixtures
Seed treatment
Plants and vines

Machine Work Hired
Silo filling
Hay baling
Ginning
Combining
Corn picking
Spraying
Airplane dusting
Other machine work

Supplies Bought
Strainer discs
Washing powders
Leg bands
Stamps and stationery
Light bulbs and fuses

Tying Material
Wire
Rope
Twine
Rubber bands

Containers
Bags
Boxes and barrels
Egg cases
Crates and baskets
Cans and pails
Bottles and caps

Insect and Disease Control
Sprays
Dusts
Other materials

Machinery Repairs
Machine-shop work
Repair parts
Blacksmith work

Farm Building Repairs
Roofing
Painting
Plumbing
Wiring
Cement
Lumber
Glazing
Nails, screws, bolts

Livestock Expenses
Breeding fees
Registration fees
Cow testing
Exhibition

Fertilizer Bought
Mixed fertilizer
Phosphate
Potash
Nitrogen
Other elements
Lime
Manure

Veterinary
Services
Equipment
Dips
Disinfectants
Fly control
Medicines
Vaccines
Poultry treatment
Dehorning

Fuel, Light, Power
Gasoline
Fuel oil
Oil and grease
Coal
Electricity and gas

Taxes
Real estate
Other farm property
Auto and truck

Insurance Premiums
Farm buildings
Livestock
Crops
Accident and Liability

Interest Paid
Notes
Chattel mortgages
Real estate mortgage

Rent, Cash
Pasture
Cropland
Buildings

Hauling Hired
Trucking
Freight and Express
Parcel Post

Auto and Truck
Gas and oil
Antifreeze
Repairs
Tires
Operator's licenses
Insurance

Miscellaneous
Commissions
Advertising
Storage
Farm papers
Bedding and litter
Small tools and equipment
Fence repairs
Farm business telephone
Farm organization dues
Farm business travel
Farm records expense
Tax accounting

Citrus Container

(Continued from Page 9)

would raise the cost of the fruit either to the consumer or the marketing cost for the grower by about a dime a box.

" . . . "Fruit buyers of the North are nobody's fools. They know how much fruit is in a box and if you reduce the quantity they will discount the price paid for the box. All our packing house machinery is geared to handle the present size box and it would cost the industry thousands of dollars to buy the machinery to fit the new size."

A check of produce buyers in Northern markets was made recently by one of the larger and thoroughly reliable trade publications. It uncovered a strong desire for smaller and more uniform packages, particularly for fresh citrus fruits.

This survey revealed that many produce men feel there is a strong need for smaller and more uniform packages, which will enable better and more efficient handling.

Last, but not least, is the belief of some leaders that a better price would result if the Florida citrus industry converts to the 4⅘ or 7/10 bushel basis.

It's simply a matter of psychology, they will tell you.

Resistance to a price increase of 15 cents per unit is not nearly as great as it would be to an increase of 30 cents for the unit twice as big.

This lessened resistance with the smaller unit would be particularly noticeable with jobbers who sell by the package and base their mark-up on an individual package rather than the size of the package.

However this better price for fruit, which some persons forecast will exist when the smaller unit is adopted, won't be noticed by the consumer:

Proponents of the smaller container emphasize that the savings all along the line—from packing house to retailer—will offset any such price increase because of more efficient operations in packing, handling, and storing the smaller container.

VAUGHN

Save LOADERS Buy DIRECT!

up to 40%

Designed for wide or narrow front tractors. Satisfaction Guaranteed!

WRITE FOR LITERATURE! State make, model of tractor!

VAUGHN MFG. CO. Dept. E ST. PETER, MINN.

Raise Citrus to the High-Profit Level with BLENN

Blenn for citrus can make the difference between an average crop and an excellent one—between a fair year and a really profitable one.

The extra growth elements in **Blenn** raise soil fertility to the high-profit level. These elements are designed to meet the exact nutritional needs of your trees. **Blenn** is made right here in Florida for our soils and climate. Properly fed groves stand cold weather better.

Blenn is made by Swift's exclusive FLO-FUSION process which fuses all the elements into free-flowing particles. The result is balanced feeding—the key to stronger, healthier trees and higher quality fruit.

This year, let **Blenn** help you get a higher return from your investment in your citrus crop. Ask for the plant food in the red plaid bag or buy in bulk.

Swift will be glad to have one of its Growers' Advisory Representatives help you with your grove program. These men are qualified by training and practical experience to assist you with your production problems.

Swift's Exclusive FLO-FUSION Process Packs Each Particle of BLENN with Extra Yield Power

High-quality liquid plant foods are injected into dry materials in a revolving FLO-FUSION processing chamber at Swift's Plants. Millions of individual chemical reactions convert raw materials into chemically-hitched plant food, drying the particles as they are formed. You get the benefit of FLO-FUSION only in Swift's Plant Foods.

SWIFT'S GROWERS' ADVISORY REPRESENTATIVES . . .

R. V. Albritton
110 South Pine St.
Sebring
Ph. EVergreen 54551

L. D. Alderman
Box 36, Wimauma
Ph. 472864 (Tampa)

W. P. Bass
2506 Center St., Orlando
Ph. 5-8081

P. J. Driscoll
Box 333, Clermont
Ph. EXeter 4-5401

J. M. Fennell
3344 Nuna Ave.
Tice, Ph. EDison 7-6681

G. B. Garrard
830 E. Stuart Ave.
Bartow
Ph. 2-7511

J. W. Gray
Winter Haven
Ph. CYpress 3-5413

J. H. Hale
West Palm Beach
Ph. TEmple 3-1855

C. C. Helms
Box 922
Homestead
Perrine, Ph. CEdar 52920

Richard S. Pike
Box 124, Vero Beach
Ph. JOrdan 7-2375

P. M. Schaill
115 S. Charleston Ave.
Fort Meade, Ph. 4-4151

W. V. Webb
3607 Corona St.
Tampa
Ph. 64-5043

E. L. Wood
1022 S. W. 4th Ave.
Gainesville
Ph. FRanklin 6-7064

Swift
104TH YEAR

AGRICULTURAL CHEMICAL DIVISION • Winter Haven and Pompano Beach

WHEN YOU'RE FARMING TO MAKE MONEY, SWIFT'S YOUR FINEST BUY!

exclusive VARIABLE PITCH!
New OIL BATH GEAR DRIVE!
available only on
ROOF VP* MOWERS
America's Most Versatile Mower!
For Weeds • Lawns • Brush • Trees
*VARIABLE PITCH—Provides instant blade adjustment for any cutting job.
SELF-PROPELLED OIL BATH GEAR DRIVE—Cushions and lubricates gear drive assembly in a continuous bath of oil.
● FULL 26" CUT
● 4 HP to 7 HP ENGINES
● ADJUSTABLE CUTTING HEIGHT
● 26" EASY-GLIDE WHEELS
● RIM-GRIPPER TIRES
WRITE FOR FREE FACT FOLDER
ROOF MFG. CO.
Pontiac 14, Illinois

IBMA APPROVED
HEAVY DUTY
YOCAM and DIAMOND
DEPENDABLE
BATTERIES
ASK YOUR DEALER OR JOBBER
WE OUT SELL...BECAUSE
WE OUT SERVE
Yocam Batteries, Inc. • Tampa, Fla.

Field Crop Guide *(Continued from Page 13)*

years. Varieties of Virginia type peanuts that may be grown successfully in Florida include: Holland Station Runner; N. C. 2; Va. 56R; and Va. Runner G-26.

SORGHUM

A. Grain:
1. Hybrids:
   a. Semi-dry headed: DeKalb D50A; RS (Texas) 610; Amak R-12.
   b. Dry-headed: RS (Texas) 620; DeKalb E56A; Amak R-10.
2. Varieties: Combine Hegari; Combine Sagrain; Martin's Combine Milo.

B. Forage:
1. Hybrids: DeKalb FS-1.
2. Varieties:
   a. Late: Sart; Honey (Texas Seeded Ribbon Cane).
   b. Medium late: Tracy; Atlas.

Although the acreage of sorghum grown in Florida is quite small, interest is increasing. Grain sorghums can be planted after it is too late to plant corn. Yields of recommended hybrids have been quite satisfactory, in both Station tests and farm demonstrations.

Several cattlemen who have compared DeKalb FS-1 with the recommended varieties of forage sorghum have expressed a preference for this hybrid. It is more easily harvested and the harvested product contains a higher percentage of grain.

SOYBEANS

A. Forage:
1. Medium late: Laredo.
2. Late: Jackson; CNS 24; J.E.W. 24.
3. Very late: Otootan; Improved Pelican.

B. Oilseed:
1. Medium late (Northwestern Florida only); Lee; Ogden.
2. Late: Jackson; Roanoke.
3. Very late: Improved Pelican.

Among the oilseed varieties, Lee and Jackson are well suited for use in northwestern Florida. Jackson is superior in central and northeastern Florida, and Improved Pelican is best for southern Florida.

FLUE-CURED TOBACCO

A. Broad leaf group: NC 402; Golden Harvest; Golden Cure; Va. 21.
B. Medium to narrow leaf group: Hicks; White Gold.

Gulf Life
ADAPT-A PLAN
Fits your changing needs
With Gulf Life's exclusive Adapt-A-Plan you can guarantee an income for your family and provide for your retirement as well.
Ask about it.
Gulf Life
INSURANCE COMPANY

FARMHAND-KROMER--for bigger crop yields--maximum control of weeds and insects.
FROM PRE-EMERGENCE TO HARVEST your best crop insurance is a Farmhand-Kromer Hy-Row Sprayer.
FARMHAND-KROMER fan type nozzles standard for maximum coverage. Other nozzles optional to fit any job. Booms easily adjust to correct height.
ALL FARMHAND-KROMER models have adjustable wheel tread for any crop. Extra clearance for high crops also available. Spring crop drops are standard.
DROP EXTENSIONS and extra nozzles available for any spray pattern. Tapered wheel guards optional.
KROMER FINISH "X"
FINISH "X"—All Hy-Row Tanks and booms are coated inside and out with amazing Finish "X"... a patented coating which makes surfaces completely resistant to spray chemicals and fertilizers.
FARMHAND-KROMER HY-ROW SPRAYERS are ideal for liquid fertilizing, weed, and insect control. They give faster, better, and more economical results. Each Hy-Row Sprayer is complete with ample power, easy steering, rugged construction throughout, large capacity Finish "X" tanks and booms, plus special Kromer pumps and optional hydraulic boom lift. All controls are within easy reach of the operator. Several models available to meet your needs.
ORCHARD SPRAYING is easy and profitable with the Farmhand-Kromer Gun-Type Sprayer. Handles all insecticides and fungicides. Also ideal for barns, poultry houses, and roadside spraying. Special Finish "X" Tanks of 125, 200, and 300 gallon size. Larger Tanks furnished on request.
Farmhand®
FIRST IN FARM MATERIALS-HANDLING
FREE INFORMATION
Write The Farmhand Company
Dept. FGR-29, Hopkins, Minnesota
Send information on.....
I am a student, send special material ☐
Send name of nearest Farmhand Dealer ☐
Name.....
Address.....
City.....State.....
A Division of Superior Separator Company

One of the broad leaf varieties should be planted on dry, sandy soil or land that cannot be irrigated. Hicks and White Gold produce well on flatwoods and moist soils or under irrigation.

FORAGE GRASSES

A. Winter Annuals:
1. Oats: Radar 1; Radar 2; Suregrain; Floriland; Seminole; AB-110; Sunland.
2. Rye: Gator; Wrens Abbruzzi; Florida Black.
3. Wheat: Bledsoe; Coastal.
4. Ryegrass: Italian; Common.

The recommended varieties of rye produce more forage than the recommended varieties of oats and wheat. Gator rye produces more *total* forage than either Wrens Abbruzzi or Florida Black; however, Florida Black and Wren's Abbruzzi produce more early forage than Gator.

The upright varieties of oats—Seminole, AB-110 and Sunland—produce more early forage, but less total forage, than the intermediate varieties—Radar 1; Radar 2, Suregrain and Floriland. Intermediate varieties should be chosen if grain is to be produced after livestock are removed in early February.

Ryegrass produces considerable forage, but is later than any of the other winter annuals.

B. Summer Annuals:
1. Pearlmillet: Gahi #1; Starr; Common.
2. Sudangrass: Sweet; Piper; Common.

Gahi #1 is a new hybrid pearlmillet that is superior to Starr, whose superiority to the common variety has been proven in numerous tests and demonstrations.

The poorest variety of pearlmillet produces almost twice as much forage as the best variety of Sudangrass. Perennial Sudangrass and other hybrids, such as Columbusgrass and Sorghum almum, appear to be no better than annual Sudangrass.

C. Winter Perennials: Tall fescue (Ky 31, Alta).

Tall fescue is of limited value in Florida. Its high requirement for nitrogen restricts it to organic soils. Best plantings are on organic soils in central Florida which, in general, are too cold for successful production of St. Augustinegrass.

D. Summer Perennials: Bahiagrass (Tifhi #1[2], Pensacola, Argentine); Bermudagrass (Coastal, Suwannee); Pangolagrass; St. Augustine (Roselawn); Paragrass; Caribgrass.

The Bahia and the Bermudagrasses are grown statewide, on a wide variety of mineral soils. Pangolagrass is grown on mineral soils in central and southern Florida; St. Augustine, Carib and Para grasses are confined to southern Florida, where they are grown mainly on organic soils.

Surpluses of any of the above grasses may be harvested for silage. Coastal and Suwannee Bermudagrasses are excellent for hay. Pangolagrass is a good hay plant, but requires more curing time than the Bermudagrasses.

FORAGE AND COVER CROP LEGUMES

A. Winter Annuals:
1. Austrian Winter peas: Common, Romack; Dixie Wonder.
2. Crimson clover (reseeding): Dixie; Autauga; Auburn; Talladega.
3. Lupines (sweet):
   a. Blue: Borre.
   b. Yellow: Weiko #3.
4. Sweetclover: Floranna (early); Israel (late); Hubam.
5. Vetch: Woolly pod; Monantha; Hairy; Common.

Crimson clover is best suited for use on well drained loamy sands and sandy loams in northwestern Florida. Austrian winter peas and the vetches are adapted to the same area, but are of little importance at present.

Sweet lupines are adapted to well drained sands, which are too dry for good growth of clover. At present, virus and other diseases are serious obstacles to good growth of sweet lupine.

Annual sweetclover will grow on good flatwoods soils that are too dry for good growth of white clover.

B. Summer Annuals:
1. Cowpeas: Iron; Brabham; Whippoorwill; Clay.
2. Crotalaria: Giant striata; intermedia; lanceolata.
3. Hairy indigo: Common; Early.
4. Lespedeza: Common; Kobe.
5. Velvetbeans:
   a. Small seeded: Victor; Early Speckled.
   b. Large seeded: Early Jumbo; Osceola.

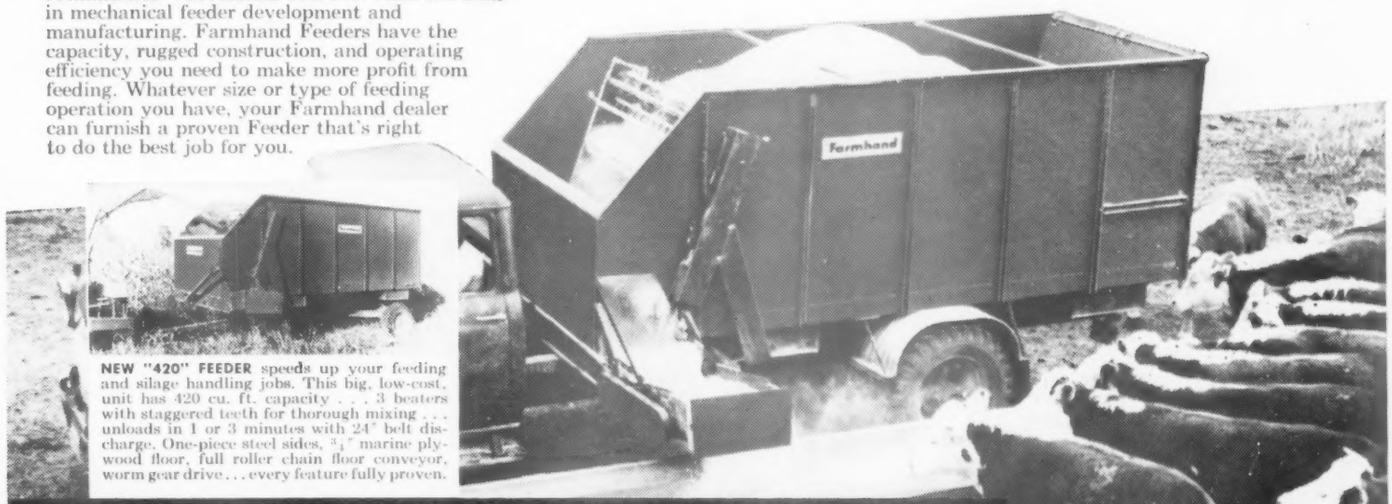
Cowpeas are widely used for grazing and hay in northeastern Florida. The crotalarias are used mainly as cover crops. Hairy indigo is grown

(Continued on Page 32)

[2]Tifhi #1 is a hybrid which, on the basis of results of grazing trials at Tifton, Georgia, appears to be superior to Pensacola.

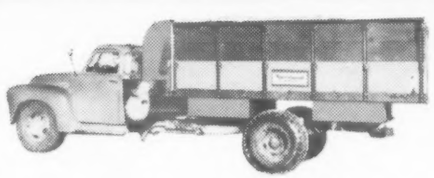
Farmhand Feeder experience benefits you!

FARMHAND PIONEERED and still leads the field in mechanical feeder development and manufacturing. Farmhand Feeders have the capacity, rugged construction, and operating efficiency you need to make more profit from feeding. Whatever size or type of feeding operation you have, your Farmhand dealer can furnish a proven Feeder that's right to do the best job for you.



NEW "420" FEEDER speeds up your feeding and silage handling jobs. This big, low-cost, unit has 420 cu. ft. capacity . . . 3 beaters with staggered teeth for thorough mixing . . . unloads in 1 or 3 minutes with 24" belt discharge. One-piece steel sides, ¾" marine plywood floor, full roller chain floor conveyor, worm gear drive . . . every feature fully proven.

THERE'S A FARMHAND TO FIT YOUR FEEDING NEEDS



6-TON "POWER-BOX" FEEDER with 2 mixing beaters and 16" auger discharge mixes and feeds 300-bu. loads of green or dry feeds. Especially suited for feeding beet pulp or high molasses content feeds. This PTO-powered unit has aluminum and wood sides, ¾" treated marine plywood floor, smooth worm gear driven conveyor. Mounts on truck, tandem trailer, or heavy-duty wagon. Extension elevator available.

4-TON "POWER-BOX" FEEDER offers high-speed mechanical mixing and feeding in a 200-bu., lower-cost unit. 2 mixing beaters, 12" auger cross-conveyor and elevator. Sides are aluminized steel and wood, with ¾" treated marine plywood floor. Smooth worm gear drive. Mounts for front or rear discharge on 2 or 4 wheel running gear.

Farmhand®
FIRST IN FARM MATERIALS-HANDLING

SEE YOUR FARMHAND DEALER
or write: THE FARMHAND CO.
Dept. FGR-29A, Hopkins, Minn.

Send free information on _____
I am a student, send special material ☐
Name _____
Address _____
Town _____ State _____

A Division of Superior Separator Company

Water Resources Conference

FEBRUARY 12 and 13 have been slated as the dates for a real person-to-person conference on Florida's water resources.

Scene of these people-to-expert talks will be at the University of Florida, Gainesville. Active participation is solicited from lay persons, civic groups, governmental agencies, and professional and technical organizations.

Purpose of this 1959 Florida Water Resources Conference is to inform the interested public, organizations and governmental agencies on the problems and needs of Florida's water resources so that all may have a better understanding of this invaluable asset.

Topics discussed during the two-day session will include:

Water resource policy, administration, financing development, quality control, research needs, water rights and water laws, competitive uses of water, and needed legislation.

Additional information may be obtained from Department of Water Resources, The Capitol, Tallahassee, or from the Public Training Center, 28 Dining Hall, Florida State University, Tallahassee.

Tests 'Diagnose' Ills of Your Soil

BEFORE you get your spring planting underway, it's a good idea to have your soil tested.

Soil testing checks on the available plant food supply. It also "diagnoses" the soil's ills, such as excess acidity or food deficiencies.

Herman L. Breland, soils chemist with the Florida Agricultural Experiment Station, reports that of all the soils examined at the University of Florida's testing laboratory, 40% had a pH of 5.5 or below.

Very few plants can do well in such sour ground. Application of limestone would improve the situation, Dr. Breland says.

To take a soil sample for analysis, mix together several subsamples taken from various locations in the field or garden. Send these in one pint-sized sample to: Soils Department, Agricultural Experiment Station, Gainesville.

For additional information on soil testing, ask your county agent for Florida Agricultural Experiment Station Circular S-74: "What You Should Know About Soil Testing."

* * *

Citrus grove thermometers, to register accurately, must be kept under shelters.

You can't afford to take chances . . .

S·P·M "Yield Insurance" costs only pennies a tree

A few pounds of magnesium, at just a few cents a tree, can make the difference between a bumper yield and no yield at all. That's the vital importance of magnesium to Florida citrus growers. And that's why you can't afford to take the chance of buying so-called "complete" fertilizers without Sul-Po-Mag* (double sulphate of potash-magnesia).

If you're thinking of saving a few cents by buying fertilizers without magnesium, you should carefully weigh the following facts.

(1) Nearly all Florida citrus soils traditionally lack adequate available magnesium and need regular special applications of this vital element.

(2) The average citrus tree removes 1 ½ to more than 3 pounds of magnesium from the soil per year. That's a lot of magnesium, when you consider the lack of magnesium reserve in Florida soils.

(3) Leaching also contributes to the need for replacement of all nutrients vital to the health and production of citrus trees. It is a continuous process of nature in all years.

Creators of Living Minerals

MINERALS International CHEMICALS

To maintain minimum available magnesium, average Florida citrus soils require an annual application of 0.2 to 0.4 lbs. water soluble magnesium (magnesium oxide equivalent) per box of fruit . . . for example, 1.6 to 3.2 lbs. for an eight-box tree.

By checking the guaranteed analysis of the fertilizer you buy, you can quickly determine the application rate necessary to supply this magnesium.

How to Detect Shortage

The first visible evidence of magnesium deficiency shows up on leaves near the fruit. Irregular yellow blotches appear along the midrib of the leaf, while the leaf veins remain green. Such trees will soon lose foliage and young wood. They'll lose yield, size, and quality of fruit. But the big risk is that, by the time deficiency symptoms appear, you've already suffered severe profit losses — often for several years.

It's better not to take the chance. Magnesium is so quickly used up in Florida soils that the only safe way to assure steady top yields is to supply the recommended amount of magnesium annually.

SUL-PO-MAG* Advantages

S•P•M premium fertilizers, containing Sul-Po-Mag, are especially made for Florida citrus soils. Sul-Po-Mag is a combination of water-soluble, fast acting, readily available magnesium and sulphate of potash.

Sul-Po-Mag does not change soil pH. It can be mixed in the ratio you need to meet your individual requirements. It can also be used for direct application where only potash and magnesium fertilization is indicated.

Sul-Po-Mag is granular in form. It stays in the soil to feed trees longer . . . assures sustained fruit development over the entire season.

For positive insurance against losses due to magnesium deficiency, be sure your fertilizer contains Sul-Po-Mag. Most citrus fertilizer manufacturers make premium grade complete fertilizers containing it.

For complete information on the role of Sul-Po-Mag in plant nutrition and its application to fruit quality and yields, write c/o the address below for our free Magnesium Booklet.

**Trademark, International Minerals & Chemical Corporation.*

S·P·M — Quality fertilizer containing a combination of readily available magnesium and sulphate of potash obtained from Sul·Po·Mag*

This seal is your assurance of extra value fertilizer.

POTASH DIVISION

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

Administrative Center: Skokie, Illinois

10-58

NOW!

CONVERT ALL GASOLINE ENGINES

Phillips 66 Philgas

THE ALL-PURPOSE FUEL

SAVE 4¢ to 15¢ per gal.

with ENSIGN carburetion

Here's why: Increases horsepower, eliminates pilferage, less overhauls, carbon minus fuel, triples oil life.

CONVERSIONS BY OUR UNIVERSITY TRAINED AND CERTIFIED LP TECHNICIANS.

Complete Industrial LP Gas Service • Parts • Maintenance

FREE ESTIMATES

GROWERS

LP GAS SERVICE

Phone WO 7-1031—230 Ariana

AUBURNDALE, FLORIDA

Citrus CLOSE-UPS

By FRED P. LAWRENCE

Citriculturist
Florida Agricultural Extension Service

An Error For the benefit of those two individuals who say they read this column regularly and to those who just happened to read the December article, we wish to say that the lead paragraph should have read "Too Much—No Better Than None" in which we were referring to cultivation—not cover crops. Thanks for your letters!

Fertilization Now is the time to fertilize citrus trees and it seems apropos to pass along the observation that many growers change fertilizer practices too often and too drastically.

A program that appears to be satisfactory need not be altered. Only in instances when yield or quality of fruit is not satisfactory should a notable change in procedure be made.

Bulletin 536 is currently being revised. However the changes will not be drastic and for this reason it is recommended as the best guide to citrus fertilization.

First Consideration Soil reaction or pH is often the limiting factor. For best results, citrus soils should be maintained at a pH value between 5.5 and 6.0. Under certain conditions of an oversupply of metals in the soil, it is well to maintain a slightly higher soil reaction.

A Reminder Last month we called attention to the extensive young tree injury that was apparently due to a condition brought on by a wide variance of day and night temperatures which occurred early last fall. This was called "Sloughing-off," for the lack of a better name.

We believe this condition will reappear (in banked trees) this spring (when the weather turns warm) and for this reason it is recommended that trees be unbanked as quickly as damaging weather has passed.

(NOTE: We leave the weather predicting to Warren Johnson and Cracker Jim—and for our money Warren is the more reliable).

Rates and Ratios Unlike most other agricultural crops, amounts of fertilizer for citrus is based on the actual yield of the tree. Our research men have this detail worked out rather well:

If the grower whose trees are on sandy soils will begin with the young bearing tree and adhere to the current recommendation of 0.4 pounds of nitrogen for each box of fruit (oranges) produced, he will be on the most economic program. The 0.4 pound is sufficient to produce the current crop and supply a reserve for tree growth.

As the tree grows, the number of boxes will increase (up to a point) and the grower will be applying an increased amount of fertilizer each year. Of course, there will be years of disaster, such as the one just past, that will necessitate an adjusted program.

We believe that ratios are very important. Through the first four to five years, a ratio of 1-1-1-½ (N-P-K-Mgo) is considered to be the best. This is to be supplemented with one to two nutritional or physiological sprays per year.

Groves five years and older which were on the above program can (and should be) shifted to a 1-0-1-½ ratio until there is some indication of the need of additional phosphate. This, incidentally, may show up rather quickly or it may not be needed for a number of years.

Odds and Ends It's not too late to get that job of hedging done! Old trees can be top-worked to an advantage now. And, certainly, it is a fine time to get that job of heavy pruning out of the way. Finally, all interested in spring grafting or budding should finish selecting and storing scion wood before the sap starts to rise.

It isn't HOW LITTLE a fertilizer costs that counts, but HOW MUCH it does

FEED YOUR TREES

ARMOUR

CITRUS FERTILIZERS

These Armour field men are ready to offer you the finest in fertilizer quality and service:

Mr. R. V. Barber
P.O. Box 6
Palmetto, Florida
Phone: 6-2503

Mr. W. W. Beckett
P.O. Box 7701
Orlando, Florida
Phone: Garden 3-9890

Mr. J. F. Cochran
820 N.E. 12th Ave.
Pompano Beach, Florida
P.O. Box 1121
Phone: WEbster 3-1660

Mr. L. L. Eaddy
322 Palm Circle
Lake City, Florida
P.O. Box 285
Phone: 3206

Mr. L.W. Jones
P.O. Box 774
Lake Wales, Florida
Phone: 3-3124

Mr. D. R. Kemper
P.O. Box 158
Clermont, Florida
Phone: EX 4-2513

Mr. D. C. McCormick
P.O. Box 1549
Fort Myers, Florida
Phone: MO 3-2046

Mr. H. W. Philpot
1918 Blackburn Ave.
Tallahassee, Florida
P.O. Box 413
Phone: 3-2104

Mr. R. E. Pinner
P.O. Box 561
Bartow, Florida
Phone: 3-0192

Mr. W. A. Scarbrough
1877 Ormewood Court
Jacksonville, Florida
P.O. Box 599
Phone: FL 9-6256

Mr. J. E. Scott
668 Antiqua Lane
"Whispering Palms"
Vero Beach, Florida
P.O. Box 1957
Phone: JOrdan 7-2263

Mr. J. B. Smith
P.O. Box 306
Newberry, Florida
Phone: 4771

Mr. W. S. Williams
135 North Kentucky
DeLand, Florida
P.O. Box 542
Phone: RE 4-1316

Mr. M. F. Zellner
P.O. Box 407
Floral City, Florida
Phone: Park 6-2085

George C. Butler, Jr.
8430 S. W. 122nd St.
Miami, Florida
Phone: CEdar 5-4067

ARMOUR FERTILIZER WORKS, JACKSONVILLE, FLORIDA
DAVENPORT, FLORIDA

Citrus Insect Control for Spring 1959

by
R. B. JOHNSON, W. A. SIMANTON, and W. L. THOMPSON*
Florida Citrus Experiment Station, Lake Alfred

Authors' Note: Good control of major insects, mites, and fungus diseases of citrus requires a planned program of preventive measures, together with frequent grove inspections and supplemental spray applications if needed.

In general, the spray program is designed around the yearly weather cycle and its effect on tree growth and insect activity. The cycle in Florida is divided roughly into four periods as follows: the important post-bloom period, the summer season when scale and mite activity reaches high levels, the fall period when scale and mite activity may be quite variable, and the winter dormant period when sprays for scab and mite control and for nutritional purposes may be applied.

To cover each of these periods with a complete control program, the monthly articles that have appeared in the past will be replaced by four articles to be published in February, May, August, and November.

Special articles will be prepared whenever unusual conditions occur that require attention.

RED SCALE is the only major pest that reached an unusually high level of activity during December and January. In the three districts where activity is presently high, the high level is due largely to heavy infestations in a limited number of groves. Although a decrease in activity is expected during February, the level will remain above average through the bloom period.

Purple scale activity has been relatively low for the past two months and will continue to be low in February. Present indications are that infestations will not exceed normal levels through April.

Purple mite infestations have been slightly above average during the past month. The future outlook is for purple mite to continue near normal levels through February. Wet weather is known to have a marked influence on mite population. If rains are more abundant than usual in March and April, infestations will be held below average. A dry period could lead to a rapid increase.

Rust mite infestations last fall developed later than usual and reached a peak at above normal level during the first week in January. Activity generally will decline during the spring months but is expected to be slightly above average most of the period.

Six-spotted mite will not be a problem this spring although colonies will be seen from time to time.

Aphid abundance usually is associated with a prolonged period of tender new growth. This situation is not likely to prevail this spring except where groves have been injured by cold. The Temple variety is quite susceptible to aphid attack and should be checked frequently.

Spray Program: A post-bloom spray is recommended for all Florida citrus. In most years this spray is primarily for control of the diseases, melanose and scab, and for citrus rust mite, but in 1959, it may be equally as important for scale control. This year a post-bloom scalicide followed by a summer scalicide is strongly recommended. There is a good historical reason for this recommendation. The severity of the outbreak of both purple and Florida red scales after the freezes of 1957-58 was similar to the outbreak that occurred after the freeze of January, 1940. Since scale infestations were also severe in 1941, it is probable that in 1959 both purple and red scales will be more of a problem than can be controlled by a single summer application. This may well be true even where a scalicide was applied in the Fall of 1958.

Scale Control: The addition of a scalicide to the post-bloom spray will add very little to the cost per tree, but will reduce the infestation to such a low level that there will be comparatively few scales on fruit and foliage when the summer scalicide is applied. This will greatly increase the effectiveness of the summer scalicide, increase external fruit quality, reduce leaf drop and dead wood and in most groves, eliminate the necessity for a Fall scalicide.

At this point it might be asked, "Would it be a good idea to omit the post-bloom scalicide and if necessary, apply a second scalicide in the Fall? This would save the cost of one scalicide if two are not needed." The answer to this question is "No" because, although a Fall scalicide may kill scale just as effectively as one applied post-bloom, it is much too late to prevent scale damage to fruit, foliage, and wood.

Even though a second scalicide is applied in September, after the fruit is infested, green spots caused by scale will not degreen, but will remain to markedly lower the grade. This is the reason why post-bloom and summer scalicides are especially important every year on Temples, tangerines, and other varieties grown for the fresh fruit market. In 1959, when scales are expected to be a severe problem the omission of a post-bloom scalicide may result in leaf drop, dead wood, and fruit drop as well as green spots before a second application can be made in September or October.

There are several scalicides and combinations of scalicides that can be used. Each one has its advantages and disadvantages. Parathion and malathion are both very effective and much safer than oil as far as the trees are concerned. They are not as likely to cause leaf drop or drop of young fruit as oil and may be used with neutral compounds of copper, zinc, and manganese as well as borax and lead or basic copper arsenate. Neither parathion nor malathion will control spider mites or rust mite, but both may be used with any of the materials that are effective against these mites. Use 0.15 to 0.25 pound of technical parathion per 100 gallons or 0.75 to 1.25 pound of technical malathion. Where fruit is present do not apply parathion within 14 days of harvest or malathion within 7 days of harvest.

SCALE AND MITE ACTIVITY BY DISTRICTS*

District	*Purple Scale*	*Red Scale*	*Purple Mite*	*Rust Mite on leaves*	*Rust Mite on fruit*
West Coast	2.61	2.93	1.25	1.90	1.55
Indian River	2.70	4.42	1.65	1.53	.89
Upper East Coast	2.45	—.15	1.71	.71	1.25
Gainesville	3.70	1.84	.67	.33	.67
Orlando	2.12	2.08	1.04	.65	0
Brooksville	2.23	.50	1.87	1.74	1.67
Ridge	3.84	4.44	1.48	1.96	1.89
Bartow	3.70	4.40	.70	2.40	2.63
State Average	2.86	3.46	1.35	1.48	1.33
Last Year	2.95	2.04	.66	1.44	1.07

*Second week in January. Activity is computed from populations, amount of hatching of scales, and number of groves with increasing or decreasing infestations. Activity is considered high if above 4.0 for purple scale, 3.0 for red scale, and 1.5 for mites.

Oil emulsion containing 1.3% actual oil is a very effective scalicide and will also control red spider, but may cause severe leaf drop and drop of young fruit during dry weather or when there is a wind with low humidity. Neutral copper compounds may be used with oil emulsion, but some copper compounds may cause flocculation which results in fruit burn, leaf drop and poor control of melanose. No more than one metallic compound should be used with oil emulsion except that lead arsenate may be added to mixtures of copper and oil on grapefruit. Mixtures of copper and zinc or copper, zinc and manganese are very likely to break an oil emulsion or cause blemish on fruit even when the mixture is stable.

Two scalicidal mixtures are also satisfactory for post-bloom use. These are 0.7% actual oil with either 0.15 pound of technical parathion per 100 gallons or with 0.5 to 0.75 pound of technical malathion. The oil-parathion mixture may cause as much or more injury as 1.3% oil, but the oil-malathion mixture has been less harmful.

No more than one oil spray should be used during any crop year whether 0.7 or 1.3% oil is used and regardless of the dates of application. For this reason oil is recommended for post-bloom use only where parathion or malathion are to be used in subsequent sprays. Furthermore, oil is not recommended when the average size of fruit is between 0.75 and 1.25 inches in diameter because it will blotch fruit in this size range.

If a mealybug infestation develops, apply either 0.25 pound technical parathion or 0.75 to 1.25 pounds of technical malathion per 100 gallons. These materials in the combination with oil are also effective. The application should be made before the calyx fits close to the fruit so that the spray will come in contact with the mealybugs. Make a thorough application on leaves, fruit, trunk and limbs. The mealybug spray can be combined with the regular post-bloom copper spray for melanose.

Melanose Control: The best control of melanose is obtained when copper sprays are applied from one to three weeks after the petals have dropped. However, where large acreages are involved, it is best to start applying copper as soon as the petals have fallen. Use enough neutral copper compound to supply 0.75 pound of metallic copper per 100 gallons. Do not use any copper compound with lime-sulfur because such mixtures are often very injurious.

Scab Control: Two applications of copper are needed to control scab on susceptible varieties such as Temples, tangelos and occasionally grapefruit. The first application should have been made in January and the second should be made when ⅔ of the petals have dropped. If scab is of primary importance and no copper was applied in January, apply a copper spray as soon as possible. Where scab is not a severe problem the dormant copper spray may be omitted or the second may be delayed until after the petals have

(Continued on Page 39)

*Written January 23, 1959. Reports of surveys by Harold Holtsberg, Fort Pierce; J. W. Davis, Tavares; K. G. Townsend, Tampa; T. B. Hallam, Avon Park; and L. M. Sutton, Lake Alfred.

CASE® proves industry leadership!

Its Dealers Score Smashing 56% Sales Increase

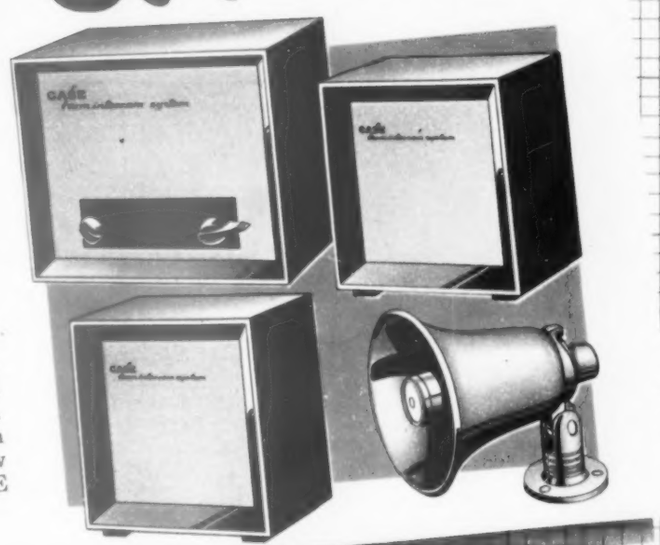
Revolutionary "1960" Case-o-matic Drive tractors spearheaded the spectacular 56% sales increase achieved last year by J. I. Case dealers—an increase estimated at more than double that of any other farm equipment manufacturer. And the now-famous years-ahead Case-o-matic line is already setting new records in 1959—not only in sales, but in performance, work capacity and fuel efficiency. Major engineering achievements for 1959 include 32 other new machines . . . all designed for one purpose—to raise your profits through substantially increased farming efficiency. Join the "big switch" to Case now—enjoy the benefits of farm equipment that is years ahead. Ask your Case dealer to show you the *vital difference* with an actual demonstration on your farm!

BIG FREE OFFER!

Free Farm "Intercom"

with the purchase of a new CASE tractor, combine or baler

Now, enjoy the time-saving convenience of a modern intercommunications system for your home and farm buildings. Participating Case dealers are giving this FREE Farm Intercom with the sale of a new tractor, combine or baler. Includes master control for the house with 2 speakers for barn and shop, and weather-proof speaker that can be mounted anywhere. The Case Farm Intercom saves time and steps, keeps you in touch with the house, and mother in touch with the youngsters. Lets you know about phone calls, visitors, emergencies—even calls you for dinner! See your Case dealer today about a new Case tractor, baler or combine . . . and YOUR FREE INTERCOM!



32 new machines for '59 . . . including a great new line of semi-mounted moldboard plows to make fullest use of the tremendous pull-power of the revolutionary Case-o-matic DRIVE® tractors

Make a DEMONSTRATION DATE today

TRY a Case-o-matic DRIVE® tractor on your farm—

discover unmatched work capacity!

See how Case-o-matic DRIVE® tractors

DOUBLE PULL-POWER

Instantly—precisely—automatically. No clutching! no shifting! no stalling!

Take a Case-o-matic Drive tractor and plow your toughest field. Select a higher working range than with a conventional tractor. Press down the accelerator—you move forward smoothly and evenly . . . no nursing the clutch, no laboring engine, no jerking. Take it through dry hard spots . . . low, wet spots . . . or rank stubborn crop growth. Case-o-matic Drive tractors *sense* additional load, increase torque (pull-power) up to 100%! With Case-o-matic Drive tractors there is no compromise with tractor capacity—no need to buy an over-sized, soil-compacting tractor with big fuel-hungry engine just to handle the tough spots. Result: you get more work from every tractor dollar you invest; more work done per hour—more work done per gallon of fuel—less cost to work an acre.

Case-o-matic DRIVE 600
pulls four bottoms
. . . costs less than many 3-plow tractors. Plows up to 20 acres in a 10-hour day. 4 or 8 working ranges, shuttle transmission available. Gasoline or LP-gas. Standard 4-wheel, row-crop with single or dual wheels, or adjustable front axles. Shown here with new heavy-duty, semi-mounted plow with big-throat clearance for heavy trash.

Case-o-matic DRIVE 800
pulls big 16-foot wheel disk
. . . works up to 80 acres a day! Handles comparable acreages with 6-row planters, cultivators. Has 8 working ranges. Choice of diesel, gasoline or LP-gas. Standard 4-wheel; row-crop with single or dual front wheels; adjustable front axle.

Case-o-matic DRIVE 400
pulls three bottoms
. . . even in tough soils, plows up to 15 acres a day. Has 4 or 8 working ranges, shuttle transmission available. Gasoline or LP-gas. Standard 4-wheel, row-crop with single or dual wheels, adjustable front axles.

Case-o-matic DRIVE 800
pulls five bottoms
. . . plows up to 33 acres a day! Choice of standard 4-wheel, Western Special, Rice Special, or row-crop models.

See your **CASE**
make a demonstra
now for the equ
you need this

A DEMONSTRATION WILL CONVINCE YOU—
and you get a *FREE CASE FARM INTERCOM* when you buy!

Introducing ...new machines from CASE® for 1959

THE WORLD'S BIGGEST CAPACITY COMBINE CASE® 1000

NEW for 1959

Case 1000. Giant 42" cylinder, 12, 14 or 16-foot header; extra wide straw walkers give biggest separating capacity in the industry. *On-the-go* adjustment of cylinder speed and concave clearance from the operator's seat. Wheel tread reduces to 84" for loading on truck.

Biggest Cylinder in the Industry!

Here's *tremendous capacity*—giant 42" cylinder matched with 16-foot header delivers sensational performance to meet the increasing demand of custom operators and big wheat ranchers for a truly heavy-duty machine. Here's almost unbelievable unloading speed. Here's control convenience like you've never seen before! Only the Case 1000 lets you change cylinder speed or concave clearance *on-the-go* from the operator's seat. On a Case 1000, *you're the boss* regardless of crop or field conditions. Corn header as extra equipment.

If you harvest fewer acres, there's a companion model, the Case 800 with 14' header, 32" cylinder, and corn header as extra equipment.

See your Case dealer for literature and local showing date.

NEW for 1959

Case 800. Like the 1000, has driver-seat control of cylinder speed, concave clearance. Pictured here with 2-row corn header (extra equipment) available with 10, 12 or 14-foot grain header.

Also NEW for 1959—these great new CASE hay machines

212 Forage Harvester. Big, heavy 6-knife wheel chops through heaviest crops without clogging. Positive feed with power-driven sawtooth drum. Three quick-change heads; row-crop, direct cut and pick-up.

640 Flail-Type Chopper. Low-cost, easy-to-operate chopper for green feeding or silo filling. Handles windrows, shreds stalks. Cuts 60" swath . . . up to 25 acres a day with any 2-plow tractor!

222 Hay Conditioner. Crimps, crushes, breaks stems at 90° to free moisture. Roll pressure is adjustable. Simple, rugged design; self-aligning bearings. Picks up 7-foot mower swath.

ealer...
on date
ment
ing

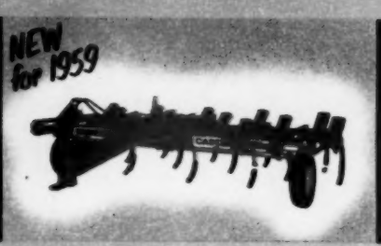
turn the page for NEW tillage tools... NEW materials-handling equipment

FARM BIGGER – BETTER – IN LESS TIME WITH THESE

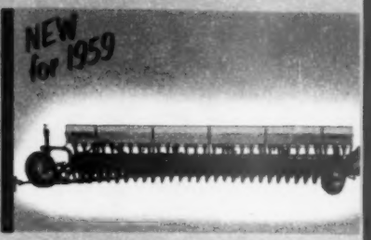
New profit-making machines from CASE®

850 SP Windrower. Only windrower with 3-way power steering as standard equipment. Variable-speed drive. 10, 12, 14 and 16-foot headers.

281 Rake. Exclusive fingertip control of tooth height. Rugged for heavy raking. 5 bars allow slower reel speeds, save precious leaves.



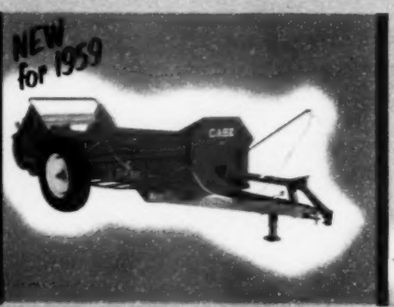
CP Chisel Plow. Rugged 4x4 box frames, 15 inches high for trash clearance. Special patented spring-trip shanks for stony ground. 10′ and 13′ widths . . . extensions to make 12′ and 15′ sizes.



900 Disker-Seeder. Disks and sows large acreages per day. Flexible 3½-foot gangs, anti-friction bearings. Sizes: 12′, 15′. Transport width: 10′

Mixer-Blender and Auger-Unloader. Mixes, blends, unloads 6000 lbs. of feed in one trip. Fills feed bunks automatically. 90 and 125-bushel sizes.

Power Unloading Wagon with bunk feeder has exclusive self-cleaning Convey-o-matic floor. You can also buy plain grain box—add other equipment later.



V-Belt Spreaders. Smooth, high-speed action shreds manure finer . . . spreads 20% wider. Exclusive 18-paddle wide-spread. 115 and 135 bushel.

190 Loader. Takes big 10½-cu. ft. bite, packs powerful 3000-lb. break-out for tramped or frozen manure. Dirt or snow buckets available.

Call your CASE® *dealer today for a demonstration of a new tractor... combine... baler... any new CASE machine —*

. . . and remember, you get a free CASE FARM INTERCOM when you buy a new CASE tractor, baler or combine

Enjoy the time and step-saving convenience of this modern intercom system for your home and farm buildings. Includes master control and 3 speakers (one weatherproof for outside mounting).

OFFER GOOD FOR A LIMITED TIME ONLY!

Mail Today FOR COMPLETE INFORMATION ON *Case-o-matic* DRIVE® TRACTORS AND NEW CASE MACHINES

Send for colorful catalogs. Check below or write in margin tractors or machines you are interested in. Mail to J. I. Case Co., Dept. 95B, Racine, Wis.

- ☐ 3-plow Case-o-matic Drive 400 tractor
- ☐ 4-plow Case-o-matic Drive 600 tractor
- ☐ 5-plow Case-o-matic Drive 800 tractor
- ☐ New 1000 combine
- ☐ New 800 combine
- ☐ New 222 hay conditioner
- ☐ New 212 forage harvester
- ☐ New 640 flail-type chopper
- ☐ New 850 SP windrower
- ☐ New 281 side delivery rake
- ☐ New semi-mounted plows
- ☐ S & SA tandem wheel disks
- ☐ Moldboard plows
- ☐ New 900 disker-seeder
- ☐ New CP chisel plow
- ☐ New 190 loader
- ☐ New V-belt manure spreaders
- ☐ New mixer-blender and auger-unloader
- ☐ New power-unloading wagon

Name_____ Student ☐

Address_____

Form No. A-847598 Printed in U.S.A.

CASE CROP-WAY PURCHASE PLAN

lets you buy now . . . make later payments as you have money coming in.

J. I. CASE

J. I. CASE CO. • RACINE, WIS.

1st in Quality for Over 100 Years

1959 Citrus Exposition to Feature Historical Panorama

MARCH 7 and 9 through 14 will be the dates of the 1959 Florida Citrus Exposition at Winter Haven.

The theme for this year's show will be the Florida citrus industry as viewed "through the eyes of a television camera." This theme was chosen because nearly 50% of the Florida Citrus Commission's annual advertising funds are now being spent on television.

As of mid-January, Exposition officials were negotiating to bring the Peter Lind Hayes daytime variety show to Winter Haven for this event. So, if plans work out, millions of television viewers will see daily telecasts direct from the Exposition grounds.

Commenting on the over-all plans for the 1959 show, Ben Hill Griffin, Jr. of Frostproof, Exposition president, stated:

"**It will be an interesting,** revealing and exciting show that everyone in Florida should see. The panorama of exhibits 'as seen through the eyes of a television camera' will range from the origin of citrus fruits in ancient China down through the ages to the most modern method of weather forecasting which are utilized to protect the all-important $600 million citrus industry of Florida."

On stage in Nora Mayo Hall will be a three-dimensional setting with citrus trees and life-size figures depicting the eating and enjoyment of citrus fruits in the royal court of Genghis Kahn, the historically famous conqueror of Asia.

Work on this project has been underway since last summer under the supervision of Mrs. Kathleen Coffee Dickinson, Exposition art director.

Opening Day (Saturday, March 7) will be observed by one of the largest and more colorful parades in the history of the Exposition. The parade will be staged through the cooperation of the Winter Haven Chamber of Commerce.

Children's Day will be observed on March 7 also. The Exposition will be closed on the following day, Sunday.

Monday's activities will be highlighted by the first preliminaries of the 1959 Florida Citrus Queen Contest.

Canners' Day will be celebrated on March 10, with citrus canners and processors from throughout the state gathering for a luncheon at Nora Mayo Hall. Five finalists in the queen contest will be named following the second preliminaries that night.

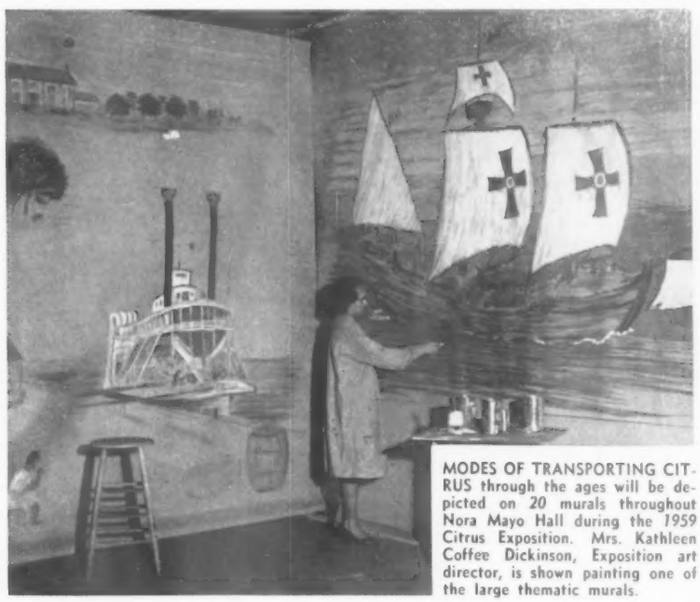
Wednesday, March 11, will be All-Citrus Day with many organizational activities being planned. That night, the new 1959 Florida Citrus Queen will be named and colorful coronation ceremonies held on the Lake Silver Ampitheater stage.

Observed on Thursday will be Fresh Fruit Day. More than 500 Florida citrus growers, packers and shippers will gather to enjoy the famous Fruitmen's Dinner, an outdoor barbecue at the Winter Haven Armory.

Agricultural Day will be observed on Friday, March 13. More than 600 men and women from all fields of agriculture are expected to attend a special luncheon at Nora Mayo Hall.

Three nationally important men

(Continued on Page 43)



MODES OF TRANSPORTING CITRUS through the ages will be depicted on 20 murals throughout Nora Mayo Hall during the 1959 Citrus Exposition. Mrs. Kathleen Coffee Dickinson, Exposition art director, is shown painting one of the large thematic murals.

Get Better Prices... More Crates

Apply the right amount of Phillips *66* Ammonium Nitrate

Hundreds of Florida growers know from experience that the 33.5% nitrogen in Phillips *66* Ammonium Nitrate helps set top quality fruit that brings higher market prices.

Experience also shows that, for more crates per tree, you need high levels of nitrogen. Six hundred boxes of oranges remove 65 or more pounds of nitrogen from the soil. Phillips *66* Ammonium Nitrate is the answer to your nitrogen needs.

An early application of the right amounts of Phillips *66* Ammonium Nitrate helps set more fruit and assures maximum utilization of other vital plant foods before blossoming.

For the essential minerals in high quality mixed fertilizers . . . and the extra nitrogen Phillips *66* Ammonium Nitrate will provide for your groves . . . see your fertilizer manufacturer or dealer.

"A Good Name to Grow By"

Phillips 66

PHILLIPS PETROLEUM COMPANY
Sales Office:
Tampa, Fla., 3737 Neptune Street

Income Tax Tips *(Continued from Page 18)*

but did not take—in a prior year.

Complete records of your depreciable property, therefore, will prevent the overlooking of an eligible item when you figure depreciation deductions.

A new rule allows you to take an additional 20% depreciation on new or used tangible, personal property purchased after December 31, 1957—provided it has a useful life of six years or more.

However, this rule has two provisos: the additional allowance of 20% is based on the cost *not* reduced by salvage. And it may be obtained only in the first tax year a depreciation is allowable on such property.

This additional allowance may be taken even though the property was not owned the entire year. For example: If you bought new equipment valued at $2,000 in September 1958, you are entitled to take an extra $400 first-year depreciation if you so desire.

Subsequently, this 20% is deducted from the cost. This would leave you a balance of $1,600 toward which you would apply one of the regular methods of depreciation.

Net operating loss deduction: If, in 1958, the total of your losses from operation of your farm exceeded your income, the net operating loss may be carried back to 1955 to offset income on which you paid tax for that year.

Any excess that remains may be used as an offset until absorbed against your 1956 and 1957 income. If excess still remains, it may be carried over until absorbed as a deduction from your income for the years 1959, 1960, 1961, 1962, 1963.

If such a carry back entitles you to a refund of 1955, '56 and '57 taxes, write the Director of Internal Revenue, Jacksonville, for Form 1045 to claim a quick adjustment.

Be sure to file this form on or after the date of filing your return for 1958. And be sure to fill it not later than December 31, 1959.

The same carry back and carry forward rules apply to casualty losses.

Casualty losses are deductible only if reported in the year sustained. Theft losses must be reported in the year of discovery.

Deductions for these losses may be made both for business property and for property not used in the business. However losses which involve non-business property are ordinarily deductible only if you itemize non-business deductions instead of taking the standard 10% ordinarily allowed.

In general, casualty losses are confined to those resulting from events due to forces that take place suddenly and unexpectedly. Damage from a normal process, such as the steady weakening of a foundation from weather, is not a casualty loss.

Principal causes of casualty losses are fire, floods, storms, lightning, and freezing.

To establish that you sustained a casualty loss and the amount of

"Our ORTHO® Fieldman's know-how helped me produce top quality crops," reports Plant City grower

"The field service that's provided us growers by ORTHO appeals to me most," says Fletcher Lett, shown above, left, inspecting a plot of young lima beans with ORTHO Fieldman Webster Carson. Mr. Lett continues: "Our ORTHO Fieldman's know-how has helped me produce top quality vegetables and citrus."

For higher yields, better prices, protect your crops with ORTHO

This report is just one of many received from leading Florida growers who have found that ORTHO products help them grow better quality crops. And, when you buy ORTHO products, all the personal, on-your-ground technical advice and expert services of your ORTHO Fieldman are provided without any extra charge.

ORTHO®

Helping the World Grow Better

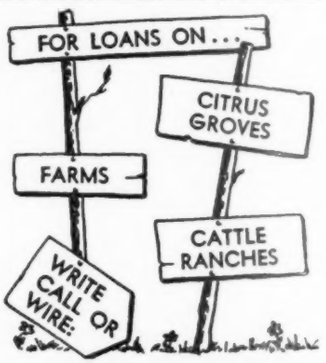
California Spray-Chemical Corp.
A subsidiary of California Chemical Co.
P. O. Box 7067, Orlando, Florida

ON ALL CHEMICALS READ DIRECTIONS AND CAUTIONS BEFORE USE.

February pest control recommendations by your ORTHO Fieldman: ORTHO Heptachlor 2 Emulsion for soil treatment of soil insects. • ORTHO Nabam for control of corn diseases. • ORTHO Parathion 4 Flowable and ORTHO DDT 2 Emulsion for corn.

For full information, see your nearest ORTHO Fieldman:

Apopka, Fla.	James Nichols	Lakeland	Jean E. Mabry	Orlando	John Nowell
Boynton Beach	Walter Whittaker	Leesburg	Charles Ashley	Plant City	Webster B. Carson
Ft. Myers	Art Alberty	Miami	Dick Acree	West Palm Beach	Perry L. Sparkman
Lake Alfred	J. S. Murphy, Jr.	Orlando	Cliff Sutton	Deland	Randall Williams



TUCKER & BRANHAM INC.
FARM LOAN DEPARTMENT

400 E. Central Ave. Orlando, Fla.
Phone GArden 4-7121
MINIMUM LOAN $10,000
Terms as long as 20 years.

the loss which is deductible, you should be prepared to show the following:

(1) Nature of the casualty and when it occurred. (2) The loss was the direct result of the casualty. (3) You were the owner of the property. (4) The cost or other adjusted basis of the property, evidenced by purchase contracts, deed, etc.

(5) Depreciation allowed, or allowable, if any. (6) Values before and after casualty (pictures and appraisals before and after are pertinent evidence). (7) The amount of insurance or other compensation received.

Remember, the rules for using casualty losses to offset taxable income in the past and in the future are the same as for net operating losses described above.

For a detailed explanation of how the Federal Income Tax applies to losses from hurricanes, floods and other disasters, write the Internal Revenue Service for a copy of Publication No. 155.

Now is the time to start planning for minimum taxes for the coming year. Income taxes, like many other farm expenses, can be reduced by planning ahead.

First consideration should be given to a system of records that will allow for accurate accounting and reporting.

Investigate opportunities to reduce taxes by paying wages to your children or by giving them some income-producing property. This may help you to spread family income over the lower brackets. It may also allow more income to be non-taxable as personal exemption.

You may want to consider planning non-business deductions so that you can benefit by itemizing them on alternate years and taking the standard 10% allowance for the in-between years.

Also, you may plan optional expenditures for years of higher income. The cost of painting buildings, minor repairs on improvement and equipment, small shop tools, and many other items do not come every year. But they are deductible in the years they do occur.

When you plan to sell your farm, consider using the installment sales method to spread tax liability on gain over a period of years. This method can be used if payments received in the year of the sale do not exceed 30% of the sale price.

Keep in mind that *it is neither illegal or immoral to avoid unnecessary income taxes.*

One of the most comprehensive aids available to farmers in regard to income and self-employment taxes is the "Farmers's Tax Guide," Publication No. 225. A well-indexed reference which states the special filing provisions for farmers and shows sample returns, this contains much information of value in tax management.

This is a free publication and is available at your County Agricultural Extension Agent's office.

* * *

Nearly 100 per cent of the oil derived from cottonseed is used in food products.

Fertrell!
A NATURAL & ORGANIC PLANT FOOD

insures BIGGER CROP PROFITS

from CITRUS FRUITS VEGETABLES • BERRIES MELONS • OTHER CROPS

✓ Increased production!
✓ Builds Humus
✓ Helps resist droughts!
✓ Has Lasting effect!
✓ All necessary minerals!
✓ Contains no "filler"—every bit helps build soil and crops!

Fertrell is an investment that will pay off with rich dividends. Write for further information or to place your order today!

H. J. KUPPERS
Factory Representative
P. O. Box 706 • Lakeland, Fla.
BUY AT FACTORY PRICES

Better crops from this seed

...backed by 2½ centuries of specialization!

Yields will be bigger and your profits greater when you plant the vegetable seeds specifically developed for your special growing conditions and markets.

Four leading seed specialists—the creators of SEED RESEARCH SPECIALISTS INC.—have totaled nearly two and a half centuries of intensive breeding on specific types of vegetable seeds. Now, under the distinctive new SRS label, they are working together . . . to provide an even greater expansion of their *specialized* seed research programs.

Look for the bright blue SRS label . . . your guide to better crops through Specialization.

CLARENCE BROWN COMPANY
SPECIALISTS IN TOMATO AND PEPPER SEEDS

LAWRENCE ROBINSON & SONS
VINESEED SPECIALISTS

WALDO ROHNERT COMPANY
SPECIALISTS IN ROW CROP VEGETABLES

WISCONSIN CABBAGE SEED COMPANY
CABBAGE SEED SPECIALISTS

Sold only through qualified seed distributors and their dealers

SEED RESEARCH SPECIALISTS *Inc.*

SALES OFFICES: Modesto, California, USA

Write our sales office for further information

PRUDEN
CLEAR SPAN
FRAMED BUILDINGS
costs less than you expect to pay!

MORE STRENGTH, LESS WEIGHT, LOWER COST...expert engineering makes the difference!
...for FRUIT WAREHOUSES
Pruden Clear Span Steel Frames are the economical answer to many building plans...and are equally adaptable for meeting halls, fair buildings, school bus garages, churches, cattle barns, machinery sheds, fruit warehouses, vegetable processing plants, and numerous industrial and commercial installations. Available in 30 to 60 foot widths, any length. So, before you decide, contact our Florida Office, Box 8441, St. Petersburg, Florida.
Manufactured by PRUDEN PRODUCTS CO., Evansville, Wisconsin

INSURED
IN
TRANSIT
Don't chance losing your money and work. Pick up the telephone and call us each time you make a shipment. Protection for packing, processing, canning plants . . . Completely staffed for insurance engineering surveys.
TAYLOR & POUND INC.
INSURANCE BROKERS
TAMPA – WINTER HAVEN

AMES Since 1910 RAIN
IRRIGATION SYSTEMS
FLOOD-FURROW-SPRINKLE
Helping Growers Profit Almost 50 Years
SEND FOR FREE LAYOUT CHART OR CONTACT YOUR NEAREST DEALER
W.R. AMES CO.
4511 E. Osborne • Tampa, Florida
1001 Dempsey Rd. • Milpitas, Calif.

BOOK MANUSCRIPTS
CONSIDERED
by cooperative publisher who offers authors early publication, higher royalty, national distribution, and beautifully designed books. All subjects welcomed. Write, or send your MS directly.
Attn. MR. JACK
GREENWICH BOOK PUBLISHERS, INC.
489 FIFTH AVE. NEW YORK 17, N. Y.

Field Crop Guide *(Continued from Page 21)*

as a cover crop and also for grazing and hay. The lespedezas and velvetbeans are of little importance at present.

C. Winter Perennials:
1. Alfalfa: African; Indian; Arizona Chilean; Hairy Peruvian.
2. Red clover: Louisiana Strain 1; Kenland; Pennscott; Nolin; Port Gibson.
3. White clover: Louisiana S-1; Nolin's Improved White; Certified Ladino (California); Louisiana Common.

The winter perennials are usually grown as annuals in Florida. Among the alfalfa varieties, Hairy Peruvian has been most popular. Recent tests indicate that African, Indian and Arizona Chilean are as good or even better than Hairy Peruvian.

Red clover of which five varieties are recommended, produces good yields of forage but does not reseed well.

Until recently, Louisiana common was the most popular variety of white clover among Florida cattlemen. Within the past few years, Louisiana S-1 and Nolin's Improved White have been found to be superior to the common variety.

Both Louisiana S-1 and Nolin's improved White produce excellent seed crops in addition to good tonnages of forage. Ladino does not produce seed under Florida conditions, but is an excellent forage producer.

Tests indicate that certified seed from California are superior to seed from most other sources. Louisiana S-1 or Nolin's Improved White may be mixed with Ladino to reduce seeding costs without reduction in forage yields and without impairing possibilities for good seed production for volunteer stands in succeeding years.

The white clovers require good moisture conditions, and production is best when water control is practiced.

COVER CROP LEGUMES

A. Winter Annuals:
1. Lupines (bitter): Common.

B. Summer Annuals:
1. Crotalaria: Early spectabilis (poisonous to livestock).
2. Sesbania: Common.

These crops have no value as forage crops, and are used only as cover or green manure crops. Lupines and the crotalarias are used on well drained soils and Sesbania on poorly drained soils.

Liming

THE AVAILABILITY OF THE PLANT NUTRIENTS already present in the soil and of those that may be added in fertilizers, is determined, to a considerable degree, by the reaction of the soil. If the soil becomes either too acid (sour), or too alkaline (sweet), some of the nutrients may be lost by leaching or become tied up in unavailable forms.

Many Florida soils have become too acid as the result of leaching or crop removal of such elements as calcium, magnesium and potassium. Such acidity can be corrected by use of lime. Liming materials supply

SPREAD

SPRAY

FLY ON
Boost yields with
DU PONT
Ask the distributor near you for Du Pont "NUGREEN"
Armour Fertilizer Co.
Everglades Fertilizer Co.
Florida East Coast Fertilizer Co.
Florida Favorite Fertilizer, Inc.
Foremost Fertilizer Co.
Fosgate Citrus Concentrate Cooperative
Glades Chemical Co.
Gulf Fertilizer Co.
Hector Supply Co.
Howard Fertilizer Co.
International Minerals & Chemical Corp.
Kilgore Seed Co.
Marico, Inc.

calcium, and in some cases, magnesium and other plant nutrients.

Knowledge of the characteristics of the various liming materials and an understanding of the factors affecting lime requirement are essential to the development of sound liming programs.

The principal liming materials are limestone, hydrated lime, burnt lime, marble dust, marl, chalk, oyster shells and industrial by-products such as slags from steel and phosphorus plants and refuse limes from paper mills, water softening plants and sugar mills. Of these, limestone is most widely used in Florida.

Except for impurities, limestone may consists mainly of calcium carbonate, or it may contain both magnesium carbonate and calcium carbonate.

Limestone that contains molecularly equal proportions of calcium and magnesium carbonates is called dolomite. That containing a lesser proportion of magnesium carbonate is called dolomitic or magnesium limestone. And that made up mainly of calcium carbonate is called calcic or high-calcium limestone.

Factors that should be considered in determining the amount of liming material to be used include:

The cation-exchange capacity and the reaction of the surface soil; the neutralizing value and the particle-size of the material to be used; the effect of soil pH on the availability of plant nutrients; and the pH preferences of the plants to be grown.

Clay and organic matter in soils are capable of holding cations such as hydrogen, calcium, magnesium, potassium, copper, zinc, and manganese in exchangeable forms; that is, one cation in the exchange complex may be displaced by another.

In humid areas, such as Florida, the exchange complex tends to be dominated by hydrogen, but other cations are present. As the proportion of hydrogen ions increases, the soil becomes more acid.

When lime is applied to acid soils, hydrogen ions are displaced by calcium and magnesium ions and the soil becomes less acid.

The extent of reduction of soil acidity is determined not only by the amount and kind of lime applied, but also by the cation-exchange capacity of the soil, which in turn is determined by clay and organic matter content.

Consequently, for any acid soil, the amount of lime required to establish a desired pH depends, not only upon the nature of the liming material, but also upon its pH and the amounts of organic matter and clay it contains.

Soil reaction, or pH has important effects on the solubility, availability, and sometimes the toxicity, of a number of elements, many of which are nutrients essential to plant growth.

Among the essential plant nutrients, maximum availability occurs between pH 6.0 and 7.5 or above, for nitrogen, phosphorus, potassium, calcium, magnesium and sulfur; and between 6.5 and 5.0 or below for iron, manganese, copper, zinc, and boron.

For maximum availability of all the plant nutrients, therefore the soil pH should be maintained between pH 6.0 and 6.5.

Crops differ as to the ranges in soil pH at which they will grow best, and they also differ in the amounts of calcium and other elements required for proper nutrition.

(Continued on Page 35)

*SERVICE & QUALITY!!!!

Years of experience in working with fertilizers for Florida soils assures you of the very best for your crops, groves, and pastures when you call on WEST COAST.

. . . QUALITY INSECTICIDES IN STOCK

One of our trained field men will be glad to discuss your fertilizer and insecticide program with you.

WEST COAST FERTILIZER CO.

*CALL "MAC" MAXWELL: TAMPA 4-3116
OR WRITE: BOX 1094, 35th AT 6th AVE., TAMPA, FLORIDA.

Scrap Rubber
for
Grove Heating

We have 300 trailer loads of scrap rubber for immediate sale.

Excellent for economical grove heating.

Give us a call at 49-7231 for details.

Industrial Tire & Rubber Co.
INC.
ADAMO DRIVE
(2 miles East of Hwy. 301)
TAMPA, FLORIDA

POLYETHYLENE FILM
Transparent or Black
The all-purpose protective cover.
Widths to 40'
FAULKNER LABORATORIES
4504 E. Hillsboro Tampa, Fla.

DUPLICATE
PICKER TICKETS
40c
per thousand in 100 thousand lots.
Smaller quantities 44¢

RUBBER STAMPS
for the new season
Write for Catalog of Packing House Supplies

FLORIDA GROWER PRESS
BOX 150 - - TAMPA, FLORIDA

45% nitrogen...

NUGREEN®

FERTILIZER COMPOUND

Planters Exchange, Inc.
Producers Supply Co.
Southern Agricultural Insecticide, Inc.
Swift & Co.
Wilson and Toomer Fertilizer Co.

For further information write:
E. I. du Pont de Nemours & Co. (Inc.)
Polychemicals Department,
1616 Walnut Street, Philadelphia, Pa.

DUPONT
REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

. . . it's concentrated 45% nitrogen

VAPAM® cleans your soil . . . helps build your profits

When you treat your soil with VAPAM soil fumigant, you help your plants grow faster, produce better. That's because you control most soil pests including weeds, nematodes, soil fungi and many soil insects.

By reducing these pests you save time, labor and production expense. In addition, your soil can give its full growth-producing power to your plants . . . to help you earn top profits.

VAPAM is a liquid, easier to apply and safer to use than other soil fumigants. You drench or mix it right into the soil. Special application equipment is not necessary. Covers are not needed for treated areas. Harmful residues are not left in the soil after the fumigant evaporates.

Use VAPAM for treating soil in vegetable seed beds to increase the stand and vigor of your seedlings. Use it, also, on field soil to reduce weeds and soil pests. Be sure to carefully follow directions on the label.

See your local dealer, or write to the address below for an informative pamphlet.

Stauffer Chemical Company, Agricultural Division, 380 Madison Avenue, New York 17, New York.

®VAPAM is Stauffer Chemical Company's trade-mark (registered in principal countries) for sodium methyl dithiocarbamate, a soil fumigant.

Research, service and products of highest quality have made Stauffer one of America's largest specialists in farm chemicals. Look for and buy Stauffer brand INSECTICIDES, FUNGICIDES, WEED KILLERS, MITICIDES, SEED PROTECTANTS, FUMIGANTS, GROWTH REGULATORS, GRAIN PROTECTANTS, DEFOLIANTS.

Stauffer CHEMICALS SINCE 1885

Agricultural OUTLOOK

Potatoes A winter crop 16% smaller than in 1958 was forecast as of December 1. Early spring producers plan a 19% smaller acreage than in 1958.

But supplies for the 1958 late fall crop will continue large for several months. And prices to producers are likely to remain well below a year earlier.

Citrus The December 1 estimate of total orange and tangerine production for 1958-59 was a 14% increase over the freeze-reduced crop of 1957-58.

Demand for fresh use and for processing is strong. But prices during the first half of 1959 are likely to average below the same period of 1958 when they rose rapidly.

Tobacco The national acreage allotment for flue-cured tobacco is the same as for 1958. Most individual farm allotments are unchanged.

Cattle Market supplies of fed cattle this winter are expected to be slightly larger than last winter. Numbers of cattle on feed January 1 were expected to be up from last year.

Slaughter weights are likely to continue heavy. Prices are likely to decline during the period of heavy marketing this winter, with heavy animals discounted considerably.

In the next several months, slaughter of grass cattle will continue relatively small.

Hogs Hog slaughter will be substantially above a year earlier soon, as animals from the sharply increased fall crop begin coming to market.

Prices to farmers will slide. And by spring, they are likely to be considerably below a year earlier.

Eggs In the next couple of months, egg production is likely to run 5 to 7% above last year. More layers are on farms and, in line with the long-time trend, production per layer is likely to be at a new high.

Prices to farmers are expected to average well below a year earlier.

Soybeans About 375 million bushels of the 1958 soybean crop are expected to be crushed in 1958-59. About 90 million bushels are expected to be exported. The total is about 24 million more than last year.

Adding in feed and seed uses, disappearance will fall short of the supply by about 100 million bushels. Such a carryover would be 79 million bushels more than on October 1, 1958.

(EDITOR'S NOTE: The above was adapted from recent USDA Agricultural Situation bulletins.)

SOUTHERN DOLOMITE
PALMETTO, FLORIDA
PHONE: BRADENTON 2-1411

MANAGEMENT—Ranch & Grove

You will like our supervision and management services. Special consideration to the absentee owner. Increase your profits and avoid worries.

- Consultants, supervision, management, and complete services for ranch, grove, farm, timber and wild life lands.
- Appraisals, Accounting, Tax Service, Loans.
- Livestock buying, Brokers, Shippers.
- Specializing in Florida, the South, and Latin America. Se habla Espanol.

Write for details

Florida Agricultural Service

P. O. Box 1429, Phone 2-2931, PLANT CITY, FLA.

Field Crop Guide *(Continued from Page 33)*

Field crops grown in Florida may be grouped, on the basis of their pH preferences, as follows:

pH 6.5 to 7.5	Alfalfa and sweetclover
pH 6.0 to 7.0	Most other legumes
pH 5.5 to 6.5	Most grasses and cotton
pH 5.4 to 5.8	Flue-cured tobacco

In order to secure maximum benefit from application of lime, adequate quantities of the proper kind of limestone should be spread uniformly during seedbed preparation and thoroughly incorporated with the surface soil to the maximum practical depth.

The desired pH value should be maintained by re-liming as often as necessary, usually every 3 to 5 years.

Determination of the amount and kind of limestone to apply should be based on the results of an accurate soil test.

Fertilization

AFTER LIMESTONE HAS BEEN APPLIED for reduction of soil acidity and establishment of desirable calcium and magnesium levels, the next step is choosing fertilization programs that will supply plant nutrients of the kinds and in the quantities needed for economical production of the crops to be grown.

The development of a good system for determining the amounts and kinds of fertilizer that should be applied on various crops on different kinds of soils is a different problem, the solution of which has been the objective of many research projects. The approach to the problem that has been most widely used is testing the effect of application of various amounts and kinds of fertilizer on crop yields.

In some of these studies, nutrient levels in the soil prior to fertilization and at intervals during the growing season of the crop have been measured, and the results correlated with, crop responses and fertilizer applications.

TABLE 1

SUGGESTED AMOUNTS OF NITROGEN, PHOSPHORUS AND POTASH FOR FIELD CROPS IN FLORIDA

(Pounds per acre, per year or per crop)

Kind of Crop	Soil Moisture	Mineral Soils: Sandy Loams N-P_2O_5-K_2O	Mineral Soils: Loamy Sands N-P_2O_5-K_2O	Mineral Soils: Sands N-P_2O_5-K_2O
Perennial grasses	Good	96 - 48 - 48	96 - 36 - 48	96 - 24 - 48
	Fair	.....	80 - 30 - 40	80 - 20 - 40
	Poor	.....	.....	64 - 16 - 32
Annual grasses	Good	90 - 60 - 60	90 - 45 - 60	90 - 30 - 60
	Fair	.....	75 - 37½- 50	75 - 25 - 50
	Poor	.....	.....	60 - 20 - 40
Cotton	Good	72 - 72 - 72	72 - 54 - 72	72 - 36 - 72
	Fair	.....	60 - 45 - 60	60 - 30 - 60
	Poor	.....	.....	48 - 24 - 48
Flue-Cured tobacco	Good	.....	60 -180 -180	60 -120 -180
	Fair	.....	54 -162 -162	54 -108 -162
	Poor	.....	.....	48 - 96 -144
Clovers	Good	0 - 72 - 72 Or 0 - 72 -108	0 - 60 - 90 Or 0 - 60 -120 0 - 50 - 75	0 - 48 - 96 Or 0 - 48 -144 0 - 40 - 80
	Fair	.....	Or 0 - 50 -100	Or 0 - 40 -120
Other legumes	Good	0 - 60 - 60 Or 0 - 60 - 90	0 - 50 - 75 Or 0 - 50 -100 0 - 40 - 60	0 - 40 - 80 Or 0 - 40 -120 0 - 32 - 64
	Fair	.....	Or 0 - 40 - 80	Or 0 - 32 - 96 0 - 24 - 48
	Poor	.....	.....	Or 0 - 24 - 72

Kind of Crop	Soil Moisture	Organic Soils: Virgin Soils	Organic Soils: Next 3 Yrs.	Organic Soils: Subs. Years
All Field Crops	Good	0 - 48 -144 Or 0 - 60 -120	0 - 50 -100 Or 0 - 60 - 90	0 - 60 - 60 Or 0 - 72 - 48

In the absence of specific research information, the kind of crop, the chemical and physical characteristics of the soil on which it is to be

(Continued on Page 48)

IDEAL FOR FLORIDA SOILS AND CLIMATE

Maximum production of quality fruit should pay handsome profits this year. Big success depends on a good, uniform bloom and early, heavy set of fruit. This is a job for nitrate nitrogen—Natural Chilean Nitrate of Soda. Its nitrogen content is 100 percent natural nitrate nitrogen. A good, early spring application will help insure heavy production and superior quality.

Chilean Nitrate is a rare, natural combination of 100 percent nitrate nitrogen, sodium and minor elements—ideal for bearing citrus trees. It builds soil fertility while producing heavy yields of fruit. Apply it two to four weeks before bloom is expected, either straight or in your mixed fertilizer, to supply 80 to 100 percent of your spring nitrogen.

If additional potash is needed, use Chilean Nitrate of Soda-Potash (15-0-14). Like Chilean Nitrate of Soda, this is a natural product -a natural combination of nitrate nitrogen, potash, sodium and minor elements.

If you have any doubts about the value of a high nitrate nitrogen program, set aside a block of trees and use Chilean as your sole source of nitrogen on them. Compare them with the rest of your grove. Convince yourself. You'll find that Chilean's nitrate nitrogen works fast in any weather; that the sodium, which is highly mobile, moves downward rapidly to destroy acidity in both top- and sub-soil; that the minor elements protect against hidden plant-food deficiencies. Use Natural Chilean Nitrate of Soda. Look for the bulldog on the bag!

NATURAL CHILEAN NITRATE OF SODA

Living in Florida

By BARBARA CLENDINEN

THE "BOY" IN OUR HOUSE has almost outstripped the phrase. Like most teen-agers today, he wears a size 20 jacket (at age 14) and his feet are already two sizes larger than his father's.

This unbelievable growth seems to happen between the time he goes to bed at night and arises the next morning.

It is accompanied (a fact known to all mothers who've been here before me) by moods which skyrocket from the depths to the heights, by a drive and energy which crumple fantastically if a chore is mentioned, and by a complete detachment of attention which leaves him unaware of words spoken by person over the age of 16.

His food needs are great and constant. If neighborhood restrictions permitted our housing a cow in the garage, it would be a saving thing. There seems to be no other way of assuring a milk supply in the refrigerator. Whether he sleeps alone in his rat's nest of books, magazines, records, tennis racquets, maps and unframed pictures, or offers temporary housing to four friends—we're always just one glass ahead of a drought.

We've taken soundings and find that he consumes a quart at every meal and most of another when he comes in from school. This is expensive. But I keep telling his father (who anguishes over astronomical reports from the milkman) that his bones and teeth should last forever.

And nutritionists murmur soothing things about the fine effect of calcium on the body's blood clotting system and the smooth operation of muscles. Teen-agers need at least four big glasses of milk a day and six is better. You can see that our boy is taking no chances.

The food experts are comforting, too, about the manner in which

SIX GLASSES OF MILK DAILY contribute to the glowing health of Susan and Bill Gillen, active Tampa junior high school students.

our walking abyss swallows up chops and chicken. Protein is vital to growth needs, they say. At least two daily servings of meat, fish, poultry, eggs and cheese are necessary.

For youngsters who are bean-poling like our ninth-grader, three or four servings are even better. So I try not to count on my fingers under the table as he reaches for his fourth pork chop, or polishes off a fryer singlehanded.

Skin is a bit of a problem with most teen-agers and the boys and girls who fill up our station wagon on the way to skating rinks and parties are keenly aware of it. They're smart about staying away from chocolate—but they *will* order those French fries with their hamburgers.

They all need reminders that four servings of fruits and vegetables daily will keep skins clear, hair glossy and manageable, and eyes healthy. One serving should be a leafy green or a yellow vegetable such as turnips, broccoli, sweet potatoes, carrots or green cabbage to supply vitamin A.

No one in Florida should have to be told but sometimes we forget that a serving of citrus every day is essential to healthy gums. I think

CHOCOLATE MACAROON CREAM, molded in a heart-shaped pan and ruffled with whipped cream, is a table-snare for Valentine's Day. Try it to tease that glow back into your lord and master's eyes. Use it, too, as the conversation piece at a luncheon or supper party this month.

- 1 envelope (1 tablespoon) gelatin
- ¼ cup cold water
- 2 squares unsweetened chocolate
- 1¼ Cups milk
- ⅔ cup sugar
- ⅛ teaspoon salt
- 2 egg whites
- 4 tablespoons sugar
- 1 teaspoon vanilla
- ¼ teaspoon almond extract
- ½ cup fine dry macaroon crumbs

Combine gelatine and cold water in mixing bowl; mix well. Add chocolate to milk and, stirring constantly, melt over low heat; then beat with egg beater until blended. Add ⅔ cup sugar and salt, bring to boil. Cook gently 2 minutes. Add to gelatin mixture, stir until gelatin is dissolved. Strain. Chill until slightly thickened.

Beat egg whites until foamy throughout; add 4 tablespoons sugar gradually, beating after each addition until sugar is blended. Continue beating until mixture stands in peaks. Add vanilla and almond extract. Whip 1 cup cream until stiff. Fold in egg white mixture; next fold in chocolate mixture and macaroon crumbs. Spoon into heart-shaped mold. Chill until firm. Unmold.

Whip remaining ½ cup cream until stiff. Press through cake decorator or pastry tube and make ruff outlining the heart about 1 inch from edge. Fill in with lattice pattern. Makes 8 to 10 servings.

---

of it every time the boy flashes that white-toothed grin and I run right in the kitchen to squeeze him another glass of juice.

Citrus helps prevent tired feelings, too and its vitamin C strengthens blood vessel walls, helps form red blood cells and aids in healing scratches, bruises and wounds.

Four servings of enriched breads and cereal are necessary to give teen-agers lots of energy, as well as sneaking in some more vitamins, minerals and proteins.

And here's the point at which I make an impassioned pitch. A solid, balanced breakfast to a growing boy or girl is like the first bucket of coal in the engine: they must have it to fire up and to keep burning as the day wears on. I'm appalled at the count of teen-agers who think doughnuts are a fine way to break the night's fast.

No teen-ager should be allowed to form the habit of pausing briefly at the breakfast table on the way out. I concede handily (and from every day's experience) that mamma is a nervous wreck, by the time she talks a teen-ager out of bed and to the table in time to eat a good meal before school.

But we survive each shattering day—and we're building some wonderful young giants for tomorrow.

YARD & GARDEN

By MARGUERITE SCHWAEN

ALL-AMERICAN selections are made in every field from football to food. They are made in the seed industry also. And the careful judging involved in All-American seed selections are of real importance to the gardener.

Thorough testing of new varieties, both for the information of the seed industry and for the benefit of the gardening public, is performed by the non-profit All-American selections organization. Dozens of entries are submitted for trial in 23 testing locations over a two-year period.

Entries are compared with similar types already on the market. Only when a new seed scores a superior rating after being trial-grown from coast to coast and from Southern Canada to the Gulf of Mexico can it be considered for the All-American award.

So when you see a new flower with this precious tag, you can be sure it's something quite special.

Pink heather alyssum is the only flower selected for the AAS award this year. It's the first pink alyssum noted, blooming in a heather or purplish pink. It blooms quickly (a desirable trait), almost as soon as it emerges from the ground. And it keeps on flowering to cover uniform mounded plants of about six inches height and spread.

Like other alyssums, seeds can be sown in their permanent locations and thinned or transplanted to a desirable stand of four to six inches apart.

Alyssum likes a sunny location and does well in any garden soil. Its brilliant color, vivid in cooler weather, is paler in summer's heat. Not a cut flower, it is especially useful for hedging beds and borders, walks and driveways, and for rock or wall gardens and plant boxes.

PINK ALYSSUM, an All-American winner.

Petunia patter: Your plant nursery probably has well-grown seedlings of such All-American petunias like Maytime, Red Satin, Comanche, and Glitters. Growing petunias all the way from seeds is tricky for the amateur, but they're the hardiest of plants once the seeds have germinated and the plants have put on a few leaves.

All-double petunias have been hybridized successfully and are classified as a type. In the singles classification there are two main flower types: the multiflora and the grandiflora.

The multiflora covers itself with loads of medium to small, plain petalled flowers and grows into mound-shaped plants from eight to 10 inches tall. The grandifloras typically have large flowers and many have wavy or fringed petals; they do not bloom in great profusion.

Maytime is a salmon pink grandiflora petunia. *Red Satin* is bright scarlet and multiflora. *Comanche* is a scarlet multiflora; *Glitters* is also multiflora, blooming in carmine red-starred white.

February planting guide: Annuals to put out now are:

Alyssum, agertatum, aster, balsam, beans (scarlet runner), gaillardia, calliopsis or coreopsis, candytuft, celosia, cynoglossum, globe amaranth, gourds (ornamentals), marigolds, nasturtium, petunia, phlox, pinks (Chinese or Dianthus) salvia, strawflower, portulaca, tithonia, verbena, and the hardy zinnia.

Cooking Wild Game

By LORA A. KISER

HAS YOUR HUNTER returned with his bag limit?

If so, your freezer is happily full of birds and ducks and perhaps even a haunch of venison. And you can serve a dinner to delight a gourmet's heart.

The method of preparing luscious wild meats is determined by the amount of gamey (or wild) flavor you want to retain. Most authorities feel that all freshly killed game is tough and that two to four days' storage in a cool, dry place make it firmer, more tender, and better-flavored.

Venison, like beef, needs about two weeks to ripen. All game is less tender and much leaner than the domestic animals especially fed and fattened before going to market. Cook game with this in mind, flavor it subtly and you'll have a feast.

To many palates, venison is the most highly prized of all game. Properly dressed and cared for in the woods by the hunter, it is free from objectionable flavors and has much of the texture and flavor of good veal.

If there is a too-strong flavor, most of it will be concentrated in the fat. Trimming away excess fat will help. But since venison is rather dry, you must put back what you've taken away—substituting suet, butter or other fats when you roast, broil or fry it.

A barbecue sauce, rich with chili powder, catsup and vinegar, can be used to baste venison into mouth-watering tenderness. This is Susan Christian's recipe . . . and she's a food expert with our state nutrition service who knows her ingredients.

Barbecued Venison

Sear 3 pounds of venison steaks or chops in frying pan with slice of salt pork or other fat. Mix following ingredients in saucepan:

- 1 cup catsup
- 1 tablespoon salt
- 3 slices lemon
- 1 onion, sliced thin
- ½ cup beef steak sauce
- 2 tablespoons tarragon vinegar (may be omitted)
- 1 tablespoon chili powder (if hot flavor is desired)

Bring mixture to gentle boil, stirring frequently. Cover venison with sauce and roast at 350 degrees for 1½ to 2 hours, turning occasionally.

Let's pluck a duck: Not long ago I received a sad telephone call. The caller had four ducks to clean and cook and was naturally elated. Joy turned to dispair, however, as the feathers refused to budge. Finally our caller skinned one duck and threw the others away!

There *is* a secret on plucking wild duck and I wish he had known this sooner. Here's how: First, remove the large feathers dry.

Next, melt about half pound paraffin in two gallons of boiling water. (Remove the water from the heat just before adding the shaved or grated paraffin.) Dip the duck into the mixture several times and let the paraffin harden. Strip off paraffin and feathers at the same time.

To remove down from ducks, brush with melted paraffin. Cool and peel off.

Flavor hints: When roasting wild duck or turkey, place a quartered apple, cut onion, a few whole uncooked cranberries or celery leaves in the cavity. These will absorb some of the wild flavor. Discard them after roasting. Roast at 300 to 325 degrees 3½ to 4 hours for a 4 to 6 pound duck.

Quail is the most delicate of all game. It's mostly breast meat. Split the plump little birds in halves and pan-broil, breast down, in butter. Or brush with butter and broil 10 to 20 minutes in the oven, basting often. You can place strips of bacon over each half instead of basting.

Squirrel and rabbit can be prepared like chicken—fried and served with pan gravy or in a fricassee.

BEST RECIPE of the MONTH

A LUSTY, vigorously flavored seafood chowder won first prize this month for Mrs. H. W. Zinsser, Route 1, Box 132, Live Oak. She uses a hint of curry's heat, the nutty flavor of sherry and a bit of garlic to season a huge kettle of blended seafoods. The cost is small; the catch equals almost four quarts of rich chowder, and the end is a perfect February supper.

Serve it with a crisp, tossed salad, crusty cornbread and a fresh apple pie. You'll be queen for the rest of the week.

Seafood Chowder

12 slices breakfast bacon
1 cup chopped onions
1 cup chopped celery
½ lemon
1 clove garlic, sliced
1 quart water
2 No. 2 cans tomatoes (5 cups)
¼ cup catsup
¼ teaspoon curry powder
2 teaspoons salt
⅛ teaspoon tobasco
1 tablespoon Worcestershire sauce
1 pound scallops (fresh or quick-frozen)
1 pound shrimp
1 pound snapper, halibut, mullet or other fish
⅔ cup sherry wine
4 tablespoons margarine

Into a 4 quart kettle, cut bacon into small pieces. Cook over low heat until golden brown, stirring occasionally.

Chop onions, celery; add, cover and cook about 5 minutes. Add sliced lemon, garlic, water, tomatoes and all seasonings except sherry. Bring to boil, reduce heat and cook slowly for 30 minutes.

Add shrimp, scallops and cook 10 minutes. Cut fish into 1 inch pieces and add along with sherry and butter. Cook 10 minutes longer or until fish is tender.

* * *

Tomatoes stuffed with piquantly seasoned shrimp and baked with golden veil of cheese won second prize for Mrs. Wiley H. Hill, Lithia. Served with a vegetable aspic, hot rolls and a dessert, this is a perfect luncheon entree.

Shrimp-Stuffed Tomatoes

(Serves 4)

4 large tomatoes
1 tablespoon butter
1 cup cooked shrimp
1 small onion, chopped
1 tablespoon chopped parsley
1½ teaspoon grated mild cheese
¼ teaspoon salt
⅛ teaspoon pepper
¼ cup soft bread crumbs

Remove center of tomatoes, salt lightly, turn upside down to drain.

Saute onion in butter until tender; add shrimp, bread crumbs, parsley, salt and pepper. Fill tomatoes and cover with cheese.

Bake at 350 degrees 10 to 15 minutes.

* * *

Another chowder—this one crisply crusted on the bottom, rich with cream atop—won a three year subscription for good cook Mrs. William Hatfield of Clermont.

Fish Chowder

In an iron skillet, place a layer of finely cut white bacon; then a layer of boned fish; over that a layer of thinly sliced raw potatoes; then a layer of thinly sliced raw onion; last a layer of soda crackers over the top.

Dot with butter, salt and pepper. Add water to ½ height of skillet and simmer gently until potatoes, onion and fish are tender.

Cook liquid entirely away so bottom layer of bacon and fish is brown; then add rich cream to cover. Heat to boiling and serve.

April's a wonderful month in Florida. Days dawn chilly but warm up fast, the last of the azaleas linger and the blossoming trees bud out. It's a time to serve lunch on the porch and drive to the nearest lake for a picnic.

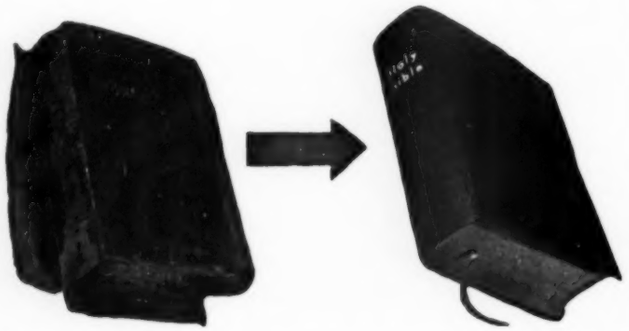
So let's talk about sandwiches for April. They don't have to be the cold kind, although we can think of dozens that make our mouth water. They can be hot from a portable grill or baked in a cheese sauce in the oven. Just so bread and fillings are involved, we'll be interested.

Send us your favorite sandwich recipe. The best will win a $5 prize and the next in line will merit $2. Mail your entry by Feb. 28 to:

Best Recipes
FLORIDA GROWER
and RANCHER
P. O. Box 2350
Tampa, Fla.

A three year subscription will be mailed for the third prize, either to the winner or to the person of her choice.

BIBLES REPAIRED



This Bible came to us as shown at left and was returned as shown at right.

We can restore your cherished Bibles and old books to new life. If you have all the pages, regardless of the condition of your book, we can nearly always restore it in a strong leather, imitation leather, or other binder. Binding material, color, gold stamping to your requirements.

Write for our descriptive catalog about our book repair and restoration.

BIBLES—FAMILY BIBLES—BOOKS—MAGAZINES BOUND

FLORIDA GROWER PRESS, INC.

1306 GRAND CENTRAL TAMPA, FLORIDA

SHORT CUTS

($1 will be paid for every Short Cut published.)

When brass or copper spoons or spinners tarnish, restore the shine quickly by rubbing them lightly with cigar or cigarette ashes. *H. J., Sarasota, Fla.*

* * *

If the corner of a rug persists in curling, try inserting a length of stiff coathanger wire in the hem of the rug. If it has no hem, the wire can be sewn securely on the underside. *E. M., Bradenton, Fla.*

* * *

Use lukewarm water for sprinkling clothes before ironing. It penetrates the fabric more evenly than cold water. *Mrs. D.L.S., Orlando, Fla.*

* * *

Scratching of kitchen linoleum or plastic floors can be prevented by cutting pads from old felt hats and gluing to the bottom of chair and table legs. *Mrs. J.S., N. Miami, Fla.*

* * *

When sewing buttons on children's clothing, use elastic thread so the buttons will stay on longer. *Mrs. J.J.H., Winter Park, Fla.*

SEWING CORNER

For Living Dolls

It's a chemise—and on little girls it's adorable. Note the hip-banded two-piece effect and the skirt of easy-to-sew pleats.

Make this simple pattern in polka-dot cotton, sleeveless, for spring's warm days. To cut it from a warm red rayon and collar it in white.

Printed Pattern 4594: Children's sizes 2, 4, 6, 8. Size 6 takes 2 yards of 35-inch fabric.

Send 35 cents in coin for this pattern—add 10 cents for each pattern if you want first class mailing. Send to:

Pattern Department
FLORIDA GROWER
and RANCHER
P. O. Box 42
Old Chelsea Station
New York 11, N. Y.

Print plainly name, address with zone, size and style number.

SPANISH PARK
RESTAURANT & BAR
REAL SPANISH DINNERS
Try Our Delicious Coconut Ice Cream
7th AVE. at 36th STREET
JOE VALDEZ Phone 4-2791
TAMPA, FLORIDA

Youth Has Its Say

'WAS YESTERDAY'S little red school really better than our modern schools?', we asked FLORIDA GROWER *and* RANCHER readers in our December issue. Here at the magazine office, we think emphatically "NO" . . . even though the opposite opinion does pop up often.

Nevertheless, it was just sheer coincidence that this month's prize-winning letter supports our view, Here's what Jane Olive, a senior high student in Marathon, wrote:

"*Dear Editor:*

The schools today do a better job than the little red school house ever could in preparing boys and girls for the world and its problems.

In those days, the subjects taught were taught to everyone without regard for their plans for the future. Now, students take specific subjects that fit in with their vocational or educational plans.

Today the subjects taught help students get a better job and give them a secure hold on the future. Today there are three different courses offered in high school: business, college preparatory, and a general course.

The only change I would make in my school is to put in better physical facilities and to have more teachers."

* * *

Progress is made by people who dare.

If a girl's interested in a boy, do you think it's a good idea for her to telephone him and suggest dates? This is a growing trend among teen-agers.

Some boys and girls (some adults, too) term it sensible and fair, part of an equals system. Others feel that a girl fares best in prestige and results, if she lets the boy initiate the approaches.

We'll pay $5 for the best letters on the subject, written by a reader between the ages of 10 and 20.

Send your letter, not more than 250 words, by Feb. 28 to:

Youth Has Its Say
FLORIDA GROWER
and RANCHER
P. O. Box 2350
Tampa, Fla.

Pest Control

(Continued from Page 24)

dropped to also control melanose. Post-bloom copper sprays will control greasy spot on the spring growth.

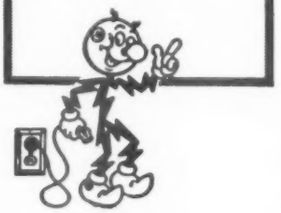
Rust Mite Control: Five materials are now available for post-bloom control of citrus rust mite. These in decreasing order of effectiveness are zineb at 0.5 to 1.0 pound per 100 gallons, Chlorobenzilate at 0.5 pint or 0.5 pound, 1.0 gallon of lime-sulfur plus 5.0 pounds of wettable sulfur, 10 pounds of wettable sulfur and Trithion at 0.5 pint or 1.0 pound.

The longest periods of rust mite control are obtained with all materials when sprays are applied thoroughly enough to wet all fruit and leaf surfaces and applied before the population attains a high level. This is called preventative spraying and is the only way to obtain the longest control per dollar spent. When used in this way, both zineb and to a lesser extent, Chlorobenzilate, should give adequate rust mite control until about July 1. The others are likely to need respraying in May or June.

All of the copper compounds used on citrus reduce the effectiveness of zineb. However, this deficiency can be overcome somewhat by increasing the dosage of zineb from 0.5 to 1.0 pound per 100 gallons. Although the higher dosage of zineb plus copper is significantly more effective than either 0.5 pound of zineb plus copper or wettable sulfur, it is not as good as 0.5 pound of zineb without copper. Mixtures of zineb and copper have given long-lasting control of rust mite where rust mite was absent or very difficult to find. On the other hand, failures have resulted when rust mite was very

(Continued on Page 44)

In Florida, **MODERN** means **ELECTRIC!**



- Cooking
- Refrigeration
- Water Heating
- Household Chores

LIVE BETTER, ELECTRICALLY!

See your appliance dealer

FLORIDA POWER & LIGHT COMPANY

Protect root systems NOW for bigger yields at harvest!

WITH POWERFUL

aldrin

Each season, soil insects downgrade millions of dollars' worth of vegetables and small fruits. These destructive pests attack and destroy seeds and growing root systems . . . preventing vital soil nourishment from reaching growing plants. That's why it will pay you to knock out soil insects with powerful aldrin.

Aldrin kills seed corn maggots, wireworms, mole crickets, grubs, and other root-destroying insects. It effectively protects important economic crops which include tomatoes, onions, potatoes, corn and small fruits. And it's economical, too. Just *one* preplant treatment with powerful aldrin lasts an entire season, and in most areas for two or three seasons.

Aldrin is easy to use. You can apply it as granules, spray or dust, or purchase it in a fertilizer mix. Whichever method you choose, you get dependable protection against soil insects with just a small amount of actual aldrin per acre.

This season, start your plants on the way to a bigger, better, more profitable harvest. Beat soil insects with aldrin. It is available under well-known brand names from your insecticide dealer. *See him today.*

SHELL CHEMICAL CORPORATION
AGRICULTURAL CHEMICALS DIVISION
55 Marietta Street N. W., Atlanta 3, Georgia

SHELL

FLORIDA FARM MARKET PAGE

The rate for classified advertising on this page is 15 cents per word, per issue, cash with order

TREES – NURSERY STOCK

SUPERIOR CITRUS TREES—Grown on virgin land, certified nematode-free Adequately protected by wind machines for assured delivery. Most varieties available for late Spring and June planting. Registered psorosis-free and xyloporosis-free stock available for Fall 1959. Will bud registered stock on order for 1960 delivery. For further information and quotations call GLendale 2-7541 or write, WARD'S NURSERY, INC. Box 846, Avon Park.

BUDDING YOUR VARIETY of citrus now on contract for Spring 1960 delivery on lemon, sweet, Cleopatra and sour stocks. GRAND ISLAND NURSERIES, Box 906, Eustis, Fla.

100 NURSERY BARGAINS. Trees, shrubs, roses and vines. Catalogue free. PLANTERS NURSERY, McMinnville, Tennessee.

CITRUS TREES—Make reservations now for coming season's planting. Ocklawaha Nurseries, Lake Jem, Florida.

REGISTERED HAMLINS on sweet seedling root; psorosis and xyloporosis free Valencias on rough lemon: both available for Spring planting. Available for contract: 5000 psorosis and xyloporosis free Valencias on rough lemon for Fall '59 delivery. WEST VOLUSIA NURSERIES, Route 2, Box 518, DeLand, Florida. Phone REdwood 4-1315.

SEEDS – PLANTS

ELEPHANT GARLIC. 6 TIMES BIGGER. Sensational seller. Send $1 for samples. Free information. NICHOLS GARDEN NURSERY, Highway Pacific 1190, Albany, Oregon.

PENSACOLA BAHIA GRASS, EARLY HAIRY INDIGO, and ALYCE CLOVER. All high quality, new crop. Available now. Write for prices. GRAND ISLAND NURSERIES, P. O. Box 906, Eustis, Florida.

SWEET ONION PLANT Assortment, 500 plants $2.00 prepaid. Fresh from Texas Plant Company, Farmersville, Texas—"Home of the Sweet Onion."

VEGETABLE AND STRAWBERRY GROWERS, for better and larger crops, investigate Black Polyethylene mulching film. For information and prices, write: POLY-FILM CO., P. O. Box 4846, Jacksonville 1, Florida.

WATERMELON SEED: Our own Texas, Oklahoma and Colorado-grown Certified seed of highest quality; 83 varieties grown strictly for seed. Spergon and Arnson treated; All American Blue Ribbon Winners. Beatiful 52 page catalog free actual photographs. Catalog includes some new varieties and information regarding planting. WILLHITE MELON SEED FARMS, POOLVILLE and WEATHERFORD, TEXAS.

NEWEST MINIATURE GARDEN—50¢. Red Emerald, 1229 Pleasant St., Schenectady, N. Y.

FOR SALE—Pepper, Eggplant plants, Emerald Zoysia lawn grass sod. Cut loaded on your truck at 8¢ square foot. C. O. PITTS, P.O. Box 53, Webster, Fla. Phone Sycamore 3-3891.

JERUSALEM ARTICHOKES Trial package $1.00, 5 lbs.—$2.50; 10 lbs.—$4.00 postpaid. Bulk prices F.O.B. 25 lbs.—$4.00; 50 lbs.—$7.00; 100 lbs.—$12.00. FRANK SHAFFER, Greencastle, Penna. Route 3.

LAKE EMERALD GRAPES $1.50. Bear this summer. Smaller Lake Emeralds and Concords $1.00 each. Postpaid on six or more. OPREAN NURSERY, Route 1, Box 324, Land O'Lakes, Florida.

NORTHERN SELECTED, STATE INSPECTED, true to name, strawberry plants: Dunlap, Beaver, Catskill, Fairfax, Premier, Sparkle, Robinson, Wisconsin 61, Wisconsin 214, Wisconsin 537: 100, $3.50; 250, $8.25; 500, $15. Gem Superfection, Streamliner, Webster, (everbearing): 50, $3.00; 100, $5.25. Latham, Viking, Newburg, June, raspberry plants: 10, $2.10; 25, $5.00; 50, $9.00. Canoe birch, 2-3 ft., 4, $1.75. Sugar maple, Silver maple, 2-3 ft., 4, $1.75. Norway spruce, Balsam fir, 2-3 ft., 2, $5.00. All stock prepaid to your door. BRULE VALLEY NURSERIES, Brule, Wisconsin.

CATTLE MARKERS

EAR-TAGS, LONG-LIFE, SNAG-PROOF, legible 25 feet. Neck Chains, Neck Straps. Anklets. Literature. BOCK'S MFG., Mattoon, Illinois.

BIBLE REPAIR

BIBLE AND BOOK BINDING of your most cherished volumes. Your old books can be estimates or write for free illustrated folder. Florida Grower Press, Dept. A., Box 150, made to look like new. Send books to us for Tampa, Florida.

RABBITS

RAISE rabbits on $500 month plan. Plenty markets. Free details. WHITE'S RABBITRY, Delaware, Ohio.

PHOTOGRAPHY

YOUR ROLL film developed, plus 8 sparkling enlargements (Yes, all enlargements) enclosed in our beautiful leatherette album complete for only 40¢ or if you wish, send postcard for our free film mailer. Superfast service and super-high quality—we've been in business since 1919. Sun Photo Company, Box 2588, Jacksonville, Florida.

HIGHEST QUALITY jumbo prints, 8 or 12 exposure. Trial roll 25¢ and this ad. CLUB PHOTO, Box 5208, Chicago, Illinois.

ROYAL JELLY

ROYAL JELLY VITAMINS—Feel better, younger—30 day supply $4.00. Agents Wanted. B-D HANSON CO., Box 1413, Lakeland, Fla.

Amazing Pure Royal Jelly. Full 50 milligram strength, 30-day supply for $5.00. Order now. Satisfaction Guaranteed. Send cash or check & we will send postpaid. Mail your order direct to Miss Frances Stevens, Box 641, Somerset, Ky.

BUILDING – SUPPLY

BARNHART'S LUMBER Yard, 4121 Nebraska Avenue, Tampa 3, Florida. Phone 37-6433. Lowest prices on doors, windows and paint.

MACHINERY & EQUIPMENT

FREE TRACTOR PARTS catalog. 1959 Edition. Tremendous savings. World's largest combination stock of guaranteed new and used parts. CENTRAL TRACTOR PARTS CO., Des Moines, Iowa.

Garden Rotary Tiller and Tractor Combined, 4 H.P.—$99.00. Special introductory offer sale. UNIVERSAL MFG CO., 324 West Tenth, Indianapolis 2, Ind.

NEW GALVANIZED PIPE, water & fence, below wholesale. Write for prices or phone collect, Tampa 4-3790, PLUMBER'S SUPPLY CO., 3602 E. Broadway.

PAINT SPRAYERS—Navy surplus $300 unit, $34.50. Free folder. IMSCO, Dept FG, 1829 S. State Street, Chicago 16, Illinois.

72" Seaman Tiller, powered by 125HP six cylinder Waukesha gasoline engine. Used less than 100 hours. Irrigation pump adaptation available. Will deliver any place in Florida for $2000.00. Write or phone, EARL PETTY, Houston 18, Texas—Phone OXford 7-3664.

New and used tractor parts, tractor tires, Caterpillar parts, New Replacement track link assemblies. Greatest values ever offered. Write today for FREE 1959 catalog. ACME TRACTOR SUPPLY COMPANY, LINCOLN, NEBRASKA.

SAVE 80% ON YOUR CAR AND TRUCK upkeep. Monetize data 25¢ Address: Shara, 1210 Magnolia Avenue, Los Angeles 6, Calif.

BEES

BEES INCREASE SEED AND FRUIT YIELDS, require little attention. Big profits. Sting-proof equipment, Factory prices save 25%. Free advice from experienced bee men. Free Catalogue. WALTER T. KELLEY COMPANY, Dept. G, Clarkson, Kentucky.

MISCELLANEOUS

LARGE STOCK—All patterns used office furniture in attractive appearance and ready for use. Big savings. USED OFFICE FURNITURE SUPER MARKET, 104 North Franklin Street, Tampa, Florida. Phone 2-7445.

Rubber Stamp—Up to 3 lines $1.00 Free literature. Agents wanted. Champlain Industries, Grand Isle 7, Vermont.

CAP and Ball Rifles and Revolvers. EVERETT BURRES, Stony Point, N. Y.

Book of 25 games and quizzes 35¢. Three samples from book 10¢. GRACE TAYLOR, Tekonsha, Michigan.

NATURE'S EXTERMINATOR — PRAYING MANTIS EGG CASES: (about 250 eggs) 2 for $1.00; 5 for $2.00; 50 for $15.00. Postpaid. Instructions. MINCEMOYER, c/o RITTOR, 554 Kinderkamack Rd., River Edge, N. J.

WANTED—Model A or Model T Ford and/or parts; Richard Flemings, 1111 Jackson, Clearwater.

5,500 HOLY BIBLE questions and answers. Wonderful book for only $1.50 postpaid. Order from Sunshine Sales, Delray Beach, Florida.

STOP—messing up your RUGS! Keep them clean, new and see their beauty through for years to come. Patent pending idea. Anyone can make them. Send $2. for actual material miniature samples, and instructions to RUG COVERS, U.T.; 111 Lee Ave., Brooklyn 11, N. Y.

LIVESTOCK

FOR SALE—5 bred pony mares and 1 stud $2500. 5 bred Welsh pony brood mares and 1 Palomino Welsh pony stallion $3500. 2 bred very attractive and gentle Palomino Welsh pony mares $1000 each or both for $1900. 2 registered Shetland Palomino pony stud colts $2000 each. 2 bred well-matched chestnut pony mares with light manes and tails $800 each or both for $1500. All the above pony mares are bred to our good registered Shetland Palomino pony stallion. Positively no Sunday business. P. K. FISHER, Quakertown, Pa. Phone Keystone 6-5648.

EARTHWORMS

EARTHWORMS—RED HYBRIDS FOR GARDEN AND PROFIT—Pit-run 1500—$5.00, 4000—$10.00 Prepaid with instructions. COPPS WORM RANCH. P. O. Box 77, South Barre, Mass.

HELP WANTED

MAN WANTED: Energetic. "Take Charge" man with heart and pride in his work. Experience in citrus or mango care required as well as ability to supervise packing at time of packing. Chicago man has 30 acres of mixed citrus and mangos, 8 miles South of Stuart, Florida. Has established a gift package trade through business associates. Good salary—home and utilities included, plus percentage incentive for proper party. Write to Sy Baskin, 4350 S. Wolcott, Chicago 9, Illinois, or contact Martin County Agricultural Agent, Mr. Levi Johnson, Bin 9, Stuart, Florida.

TIRES

AIRPLANE TIRES—Nylon, Excellent, all sizes: 36"SC, 56"SC, 56x16, etc. What do you need? Lowest wholesale prices. SUPERIOR PRODUCTS CO., Box 357, Riverside Station, Miami 35, Florida. Phone PL 7-3127

AEROPLANE AND INDUSTRIAL tires, tubes, Wheels, Chains, most all sizes. Wholesale, Retail. E. H. Green, Box 295, Phone 2-5131, Avon Park, Florida.

SONGWRITERS

SONGPOEMS AND LYRICS WANTED! Mail to: Tin Pan Alley, Inc., 1650 Broadway, New York 19, N. Y.

FLOWERS

PANSY CULTURE HANDBOOK for commercial growers now available to gardeners. Results of 65 years specializing in pansies only. Price 50¢. STEELE'S PANSY GARDENS, INC., P. O. Box 4555-F, Portland 2, Oregon.

ROSEBUSHES: FINEST QUALITY PLANTS. Reasonable, FREE folder. TATE NURSERY, Route 3, Tyler, Texas.

IMPORTED DUTCH AMARYLLIS: Ludwig, Warmenhoven and Van Meeuwen strains: Price list including many new varieties for this season. ROBERT GOEDERT, Box 6534, Jacksonville 5, Florida

BUSINESS OPPORTUNITY

MINK—$25.00 each. Bred Females for April delivery. Book: "Domestic Mink"—$1.00. HARRY SAXTON'S MINK RANCH, Bemus Point, N. Y.

Make money raising Guinea pigs, Rabbits, Mink, Chinchillas, or Nutria, for us. Write for free information. Keeney Brothers, New Freedom, Pa.

SOLICITORS WANTED TO SELL FLORIDA GROWER AND RANCHER Magazine, the State's outstanding Farm Journal. References required. Can earn over $60 Weekly. Write FLORIDA GROWER AND RANCHER, Tampa, Florida.

FALSE TEETH

Dentures loose? Painful? Troublesome? Sore gums? Valuable new helpful information free. BAKER 85 (FG2), Elyria, Ohio.

DUCKS & GEESE

Goslings; all breeds; pedigreed stock; free illustrated catalog. RIDENOUR'S RANCH, Goulds 19, Florida.

REAL ESTATE

Wanted 10 to 100 acres of citrus groves, also citrus land. Have buyers. Write giving price terms, legal description and full details. Ralph Franks, Reg. Broker, 1713 N. Mills Street, Orlando, Fla.

If your farm or ranch is for sale please contact me. I also make loans on land and cattle. Tom McDonald, Box 4133, Ft. Lauderdale. JA 2-8345.

CHOICE HOMESITES, Maryville, Tennessee. Near Knoxville and beautiful, healthy Smoky Mountains. Write: P. O. Box 5081, Raleigh, N. C.

PERSONAL

Loose false teeth—shrunken mouth—makes you look older. Valuable new helpful information free. BAKER 85 (FG8), Elyria, Ohio.

POULTRY

WE SPECIALIZE in started Pullets for cage egg producers. Available the year round. We have White Leghorns of the famous Mount Hope Strain, this is one of the oldest high production strains in America. They are medium size Leghorns and adapt themselves readily to cage confinement. We are in position to make delivery of these pullets at different ages up to ready-to-lay. Better still, call and see our newly constructed modern plant in operation. Write or phone us. SUNNYBROOK POULTRY FARMS, INC., Dept. G, Box 468, Route 3, Ocala, Florida. Phone Marion 9-1525, Ray Arthur, Mgr.

IT'S POSSIBLE, $1.44 MORE PROFIT PER HEN. READ: What a Poultryman wrote Trails End. "I woul dlike a price list on Imperial White Leghorn Pullets. Two years ago I stopped buying chicks from you and bought from a Hatchery that has been in the top of the Random Sample Test for the past several years. The chicks are fine if you like 60% production but the ones I got from TRAIL'S END for a couple of years you like 60% production, but the ones I got at all, they would peak at even a higher rate." Buy great laying Imperial Leghorns, they cost about half as much. Great laying New Super New Hampshire Reds, Rocks. Write for free copy of Trail's End News, Literature, Low chick prices. TRAIL'S END POULTRY FARM, Gordonsville, Virginia.

Low Price Quality Chicks! Assorted Heavies $4.35—100: Pullets (Our Choice) $11.90—100: (Straight Run Your Choice) Reds, Rocks, Leghorns, Minorcas, Hybrids, $7.90—100: Send Check or Money Order. Prompt Shipment. Write for Bargain Sheet Listing over 29 Breeds. Triple "A" Chick Co., St. Charles, Missouri.

HATCHING EGGS—February to July. Golden, Silver, Reeves and Amherst Pheasants. Also Bantams and Rare Breeds of Poultry. Price List. M. S. NININGER, Land O'Lakes, Fla.

"ROCKS OR REDS, NO LEGHORNS," $4.25—100 COD, Life Guarantee. NATIONAL CHICKS, Philadelphia 50, Pa.

DOGS – PETS

Pekingese, Chihuahuas, Collies, Shepherds, Fox Terriers, Pet Monkeys. Pete Motley, Wadley, Ala.

INTEREST TO WOMEN

Loose false teeth shrink your mouth—make you look older. Valuable new helpful information free. BAKER 85 (FG5), Elyria, Ohio.

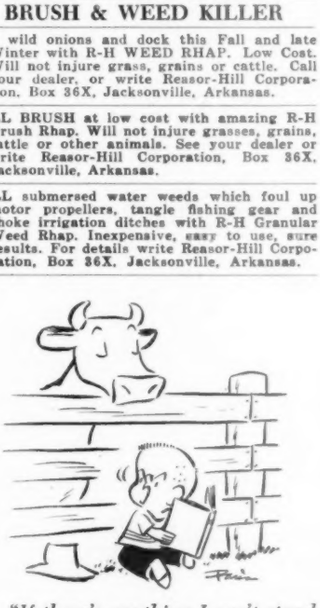
Do quilting. Satisfaction guaranteed. AMANDA SWARTZENTRUBER, Montezuma, Georgia, Route #1.

BRUSH & WEED KILLER

Kill wild onions and dock this Fall and late Winter with R-H WEED RHAP. Low Cost. Will not injure grass, grains or cattle. Call your dealer, or write Reasor-Hill Corporation, Box 36X, Jacksonville, Arkansas.

KILL BRUSH at low cost with amazing R-H Brush Rhap. Will not injure grasses, grains, cattle or other animals. See your dealer or write Reasor-Hill Corporation, Box 36X, Jacksonville, Arkansas.

KILL submersed water weeds which foul up motor propellers, tangle fishing gear and choke irrigation ditches with R-H Granular Weed Rhap. Inexpensive, easy to use, sure results. For details write Reasor-Hill Corporation, Box 36X, Jacksonville, Arkansas.



"If there's anything I can't stand, it's somebody reading over my shoulder."

Tractor Highway Safety

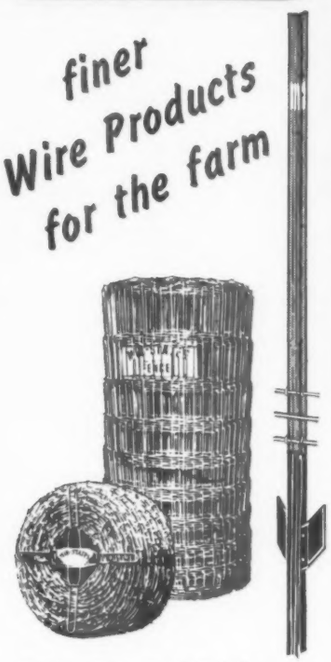
Rear-view mirrors on tractors reduce the hazards of tractor driving on the highway even more than the usual warning flags.

Moreover, the warning flags can be improved by making them with diagonal stripes of red and white.

Adequate highway safety devices —properly placed tail lights, warning flags, and rear-view mirrors— can practically eliminate highway tractor accidents, it is believed.

MID-STATES

finer Wire Products for the farm



Top quality products that give years of extra wear at no extra cost. Line includes long-lived, weather-resistant farm fence, "Hi-Ten" barbed wire (lighter, yet stronger and lower cost), "Gold Lock" steel posts, baler wire, "Giant" never-sag all-steel gates, poultry netting, etc. See your dealer.

MSSW MID-STATES STEEL & WIRE COMPANY

Look for this emblem; mark of top quality

MID-STATES fence

MID-STATES STEEL & WIRE COMPANY
CRAWFORDSVILLE, INDIANA
JACKSONVILLE, FLORIDA

GOOD COW CARE includes CORONA!

Never neglect minor udder injuries. Avoid costly major infections with the healing help of Corona. It's **Lantiseptic!** Massage swollen udders with rich, protective Corona. Leaves a weather-resistant film. **Quick comfort for irritated teats.** At druggists or direct postpaid, ½ lb. can $1.10.

Trial Sample 10c. Write today! CORONA, Dept. X-73 Kenton, O.

IDEAL IN THE HOME, TOO, for chapped, cracked, chafed or dry skin, callouses, and all minor healing needs.

CORONA ANTISEPTIC OINTMENT BUILT-ON LANOLIN

Henry P. Browder views one of his hardy, high-producing trees. Photo at right shows a 140-year-old grapefruit tree that Browder says has produced as high as 110 boxes of fruit.

"RAINBOW helped condition my trees ...saved them from killing freezes"

That's the enthusiastic report of grapefruit grower Henry P. Browder of Arcadia, Florida. "I've been buying fertilizers from International for 20 years," Browder says, "and two years ago I started buying their Rainbow Premium Plant Food. Rainbow increased production and improved the condition of my trees. There is no doubt that Rainbow helped protect my groves from losses during last year's cold weather."

Hundreds of other Florida citrus growers have shared Browder's experience. They know that Rainbow-fed trees are vigorous and healthy, better able to withstand cold weather. Why not get in touch with your Rainbow representative listed below. Let him tell you how Rainbow Premium fertilizer . . . fortified for higher profits with International's exclusive ingredient MEM . . . can improve yield and quality and boost your income.

MINERALS International CHEMICALS

PLANT FOOD DIVISION
INTERNATIONAL MINERALS & CHEMICAL CORPORATION
Administrative Center — Skokie, Illinois • Plant Locations: Mulberry, Jacksonville, Pensacola, Florida

NORTHERN DISTRICT
SALES MANAGER—
G. H. Richardson
Box 3072 MSS
Tallahassee, Florida
FIELD REPRESENTATIVES—
J. C. Beasley
Box 55
Opp, Alabama
C. S. Bevis
Corner Seminole & Pawnee
Madison, Florida
C. E. DeBolt
1602 Rose Ave.
Ocala, Florida
F. D. Goodwin
1175 McDonough
Montgomery, Alabama
S. M. Lufkin, Jr.
Box 612
Atmore, Alabama
D. W. Maxwell
Box 227
Lake City, Florida

SOUTHERN DISTRICT
SALES MANAGER—
G. T. Hackney
Box 942
Fort Pierce, Florida
FIELD REPRESENTATIVES—
T. H. Collins
Route 6, Box 662
Tampa 10, Florida
G. W. Hammette
Box 326
Orlando, Florida
C. R. Johnson
Route 2, Box 385
Miami, Florida
L. L. Loadholtz
721 N. Stone
DeLand, Florida
L. L. McIver
Box 2348
Vero Beach, Florida
B. E. Pennington
Box 183
Dade City, Florida
J. C. Pennington
Box 674
Stuart, Florida
W. T. Rucker, Jr.
General Delivery
Tice, Florida
J. V. Smith
203 N. Florida
Wauchula, Florida
H. E. Thompson
2931 Walnut N. W.
Winter Haven, Florida
TRAINEE—
W. M. Keen
1620 Livingston Avenue
Orlando, Florida

EDITORIAL:

Let's Reorganize Our Department of Agriculture

At this writing, public hearings are being held all over Florida for the purpose of getting the people's—particularly the farmer's—opinions, criticisms, and suggestions of a detailed and comprehensive plan to reorganize the Florida Department of Agriculture.

Certainly this state's Department of Agriculture needs reorganizing. It is a patchwork of political sculpture that dates back to 1889. It deals in too many non-agricultural activities and lacks the authority to work in many of the fields where it belongs.

Now is the time and opportunity for Florida to get itself a real Department of Agriculture, one that limits itself as far as possible to the business of helping farmers produce and sell without the handicap of half a dozen politically appointed boards and commissions.

The new reorganization plan just submitted by the Florida Legislative Committee on Agricultural Services should be understood by every person connected with Florida agriculture. We have examined it from stem to stern, weighed it, and discussed it with others. As a whole, we think it is an excellent job of shaping the Department into what it should be.

What this committee has done is, in effect, pull all the agricultural functions in the state into the Department where they belong and eliminated those that don't belong there. With limitations it has made the office of Commissioner of Agriculture a much more powerful one. It affords the Commissioner the opportunity to serve the state in a highly effective manner. We think this is good reasoning. We realize that power can be abused but we believe it is folly to push agricultural responsibilities into the hands of separate and disassociated boards and commissions just to keep the control away from the Department of Agriculture.

For instance, the new plan abolishes the control of the Plant Board by the State Board of Control and puts it directly under the Department's Plant Industry Division and a technical committee. For years, Florida has let a group of non-agriculturists dictate measures to cope with plant disease, transportation, etc. by dropping the problems into the laps of the Board of Control, a body designated to coordinate higher education. The plan likewise does away with the Florida Livestock Board and puts its function in the Department under a division of Animal Industry. The Florida Livestock Board is another board composed of members selected by the Governor and subject to the personal tastes of a new governor every four years.

The new plan creates eight divisions: Animal Industry, Plant Industry, Chemistry, Inspections, Citrus and Vegetable Inspection, Standards, Marketing, and Administration.

The first three of these divisions, Animal, Plant, and Chemistry, because of their direct relationship with agriculture, will be augmented by a technical committee of farmers and affected persons who will have the veto power. This will give direct representation to agriculture and agricultural industry. All the other divisions will be the responsibility of the Commissioner.

One of the features of the new plan is the creation of an Agricultural Advisory Council composed of 13 members representing all phases of agriculture who would advise, counsel, and consult with the Commissioner in all types of agricultural matters.

From this council would come most of the members of the technical committees which have voting authority for the three divisions previously mentioned. An earlier plan suggested this Council have the authority to veto all technical regulations and approve Division Directors. This provision was wisely deleted in the final plan. No Departmental plan should hamstring the Commissioner into the role of a figurehead. Our Commissioner of Agriculture must have the authority to act in as wide an arc as possible to be effective.

The members of the Advisory Council will be selected by the Commissioner from nominations from the trade associations that represent their respective vocations, to wit: beef cattle, swine, dairy, poultry, citrus, vegetable, ornamental horticulture, seed, feed, fertilizer and pesticide, field crops, forestry and petroleum.

Here may come some dissention. Some of these fields are not clearly represented through one association. But it is evident that the planners have endeavored to make the council a true representation of Florida agriculture by steering away from private appointments. Council members must be bona fide agriculturists in their repective fields.

The plan, however, points out that the establishment of this Council does not intend in any way to side-track the efforts and views of any individual farmer or other person who wishes to make himself heard.

One of the recommendations that will probably draw fire from some quarters is the abolishing of the Florida Milk Commission and creating in its stead a milk administrator under the Division of Administration.

What the committee is suggesting is that the present milk law be overhauled to conform somewhat to the Federal Milk Order which was adopted by South Florida dairymen and which has worked successfully. The milk administrator would merely supervise the enforcement of the law. It is suggested that the milk law include, as far as possible, a formula for controlling the economics of milk and protecting the rights of the consuming public.

Florida dairymen and distributors might do well to buy this plan and rid themselves of the political, inconsistent Milk Commission which runs hot, cold, tight, and loose. The Milk Commission has been publicly condemned on too many occasions to ever gain true support of the citizens of Florida.

A fair milk law could assure our dairy industry of a solid foundation from which it could look beyond the next Governor's election.

The new plan accomplishes a score of needed housecleanings and consolidations. It also creates a few necessary posts.

The Commissioner of Agriculture serves on 11 commissions, boards, councils and departments in our state government. He is also a member of the State Cabinet and Budget Commission. It is virtually impossible for the Commissioner to administrate all of his agricultural duties without assistance, and the plan calls for the appointment of an Assistant Commissioner of Agriculture.

The plan rids the Department of sanitary inspections and places that function within the State Board of Health. It calls for the State Chemist to be appointed by the Commissioner instead of the Governor. It brings the isolated Agricultural Marketing Board, the Marketing Bureau, and the Immigration Bureau into a common Marketing Division. It restricts by law the publishing of information to agriculture and puts this under an agricultural information section within the marketing division. It transfers the field notes division and the land division to the Internal Improvement Fund. It calls for Department attorneys, in lieu of paying retainer fees.

This reorganization committee headed by Sen. Tom Adams of Orange Park and composed of a group of persons recognized or engaged in agriculture is offering Florida agriculture the type of state governmental organization it needs to operate at maximum effectiveness.

The plan is not purported to be perfect in every detail. But it has the solid framework to build a Department that does what it should do—serve all Florida agriculture with clearcut, undiluted responsibilities.

THUMMER GREEN — —

- - - SHARMAN

NOW HERE'S ONE WITH A LITTLE LEMON JUICE THUMMER!
LOOK GEORGE... I NEED SOME HELP! GET SOME OF THE FELLAS AND COME OVER... MY WIFE'S ENTERING HER BLUEBERRY PIE IN THE FAIR THIS YEAR, AND I'VE BEEN TESTING ALL DAY!

Citrus Exposition (Continued from Page 29)

—from the citrus producing areas of California, Texas and Florida—will be honored guests at this luncheon. This event is sponsored by Florida Citrus Mutual.

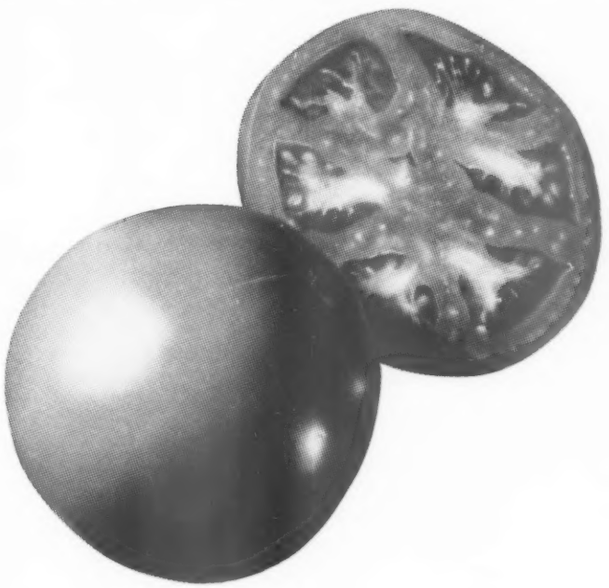
One of the Friday highlights will be the presentation of an award by Governor LeRoy Collins to Florida's Outstanding Young Farmer of the Year.

Also on Friday, the Exposition pays tribute to the state's press, radio and television people.

Processor's Day will be observed on Saturday, March 14. Honored at a special luncheon will be representatives of 4-H Clubs, Future Farmers of America, and Florida's citrus processors.

During the entire Exposition, the James A. Strates Shows will be featured on the Midway.

Florida's Major Tomato Disease —Botrytis—Beaten by PHYGON®-XL



Phygon beats costs down as much as $500 per 50-acre plot—Beats any other fungicide in performance—*Only* Phygon-XL gives real control of Botrytis blight

Gray mold (Botrytis) has rocketed up to be one of the major tomato diseases in Florida.

Phygon-XL gives *real, positive* control of Botrytis and late blight—any other fungicide gives only slight to moderate control, and requires additional material *at extra cost.*

Test after test has shown that Phygon-XL can effect spray costs savings of up to $500 per 50-acre plot. Bigger plots mean bigger savings—and profits.

Detailed experiment station tests on staked and unstaked tomatoes show that Phygon-XL is conclusively the most effective fungicide available for tomatoes for prevention of Botrytis.

Phygon-XL is simple to apply, is compatible with recommended insecticides and fungicides, and does not affect odor or flavor of fruit.

United States Rubber

Naugatuck Chemical Division

Naugatuck, Connecticut

producers of seed protectants, fungicides, miticides, insecticides, growth retardants, herbicides: Spergon, Phygon, Aramite, Synklor, MH, Alanap, Duraset.

Manganese gives citrus fruits greater resistance to frost and flash freezes.

Use **tecmangam**... an economical source of manganese. Apply as spray or fertilizer mix

Citrus fruits need manganese. This vital element helps trees resist low temperatures and produce top-quality fruit high in Vitamin C content.

Tecmangam contains 75-78% manganese sulphate. Easy-to-handle and completely soluble, Tecmangam can be used in nutritional sprays or in dry fertilizer mixes.

Tecmangam is available in bags from your local fertilizer distributor. Carload quantities are shipped directly from

Eastman

CHEMICAL PRODUCTS, INC.

KINGSPORT, TENNESSEE

subsidiary of EASTMAN KODAK COMPANY

Plant Field Corn *(Continued from Page 15)*

cum (leaf-blight) than the other varieties. Dixie 18 was consistently more susceptible to the disease.

At present, it is suggested that Corneli 54 or Funk G-740 be used.

Regardless of the varieties tested, it was found that yields of greater than 100 bushels per acre could be produced following tomatoes under ideal conditions.

Insect control: When field corn is planted immediately following a fall vegetable crop, the chances are good that very little spraying will be needed to control bud-worms because they are generally at a season's low at this time.

However, since worms do the most damage to corn when it is becoming established, the corn should be examined carefully when it is young. If cutworms are present, it is necessary to treat at once with toxaphene spray or poisoned bait before the worms destroy the stand of corn seedlings.

Results at the Indian River Field Laboratory have shown that for an early spring crop, a maximum of two sprayings for bud-worms is usually satisfactory . . . and that in some plantings, no spraying would be necessary.

If bud-worm damage is noted when the corn is small, it is necessary to spray with 25% emulsifiable DDT at a rate of one quart per 100 gallons water applied at the rate of 50 gallons per acre.

Larger volumes of spray must be applied when the corn is larger.

The important point is that enough liquid should be applied to insure run-down from the leaves into the whorls. After the corn has reached waist-height, it is doubtful that spraying is of economic value except under unusual conditions.

But if a heavy infestation of worms is present at the time the tassels begin to appear, it is advisable to dust by airplane once or twice with 10% DDT or toxaphene as the tassels emerge. Otherwise, the worms will be pushed out of the buds by the tassels and then will migrate to the young ears.

It is not economical to spray for leaf-blight fungi.

Summarizing our research, we find that commercial production of field corn on the mineral soils of south Florida, following fall production of tomatoes, should result in yields of 75 bushels per acre or more if the following general plan of management is followed:

Level the tomato beds.

Plant corn between February 1 and March 15 on 42-inch shallow beds with plants spaced nine to 12 inches apart.

Apply 40 pounds of nitrogen per acre under the seed at planting.

Control cutworms and bud-worms when the corn is small.

Protect germinating corn and young seedlings from bird damage.

Side-dress once with 80 pounds of nitrogen per acre when the corn is about knee-high and cultivate at this stage also; or apply 40 pounds at this time and another 40 pounds 10 to 14 days later.

Maintain good moisture conditions, especially at tasseling time.

* * *

Pest Control

(Continued from Page 39)

numerous at the time of application. Therefore, zineb is highly recommended for post-bloom use at 0.5 pound per 100 gallons except where copper is used. If copper is used, the dosage of zineb should be increased to 1.0 pound, but this mixture of zineb and copper should not be used where rust mite is numerous. Where zineb cannot be used, second and third choices are Chlorobenzilate and sulfur sprays. Do not use lime-sulfur on tangerines. Trithion should be used only where combined control of rust mite and red spiders is desired. If rust mite becomes a problem between the post-bloom and summer sprays, sulfur dusts or sprays should be used.

Broad Mite Control: The broad mite occurs in some groves in some years and causes a russet similar to the russet caused by rust mite. Broad mite is a spring problem, occurring on small fruit up to about an inch in diameter. It is not present every year, but when it does occur, it is confined to groves on low land or adjoining moist areas.

(Continued on Page 47)

Leslie (left) and W. B. Fletcher, Jr. (right) like the service they get from Charles McPherson, representative from their Indianola Firestone Dealer, W. W. Gresham.

"We had to get tires that work in deep mud—

FIRESTONE SPADE GRIPS GOT THE JOB DONE!"

says W. B. Fletcher, Jr., W. B. Fletcher & Sons, Allendale Plantation, Indianola, Mississippi. "We tried to pick cotton using other tires last year, but the mud stopped them. Then we took the Firestone Spade Grips off the combine and put 'em on the picker. They really got the job done! Without them, our cotton crop would still be in the fields!"

Firestone Champion Spade Grip* tires are specially designed to deliver sure-footed going in muddiest field conditions. Deep, curved-bar traction cleats, built with Firestone Rubber-X, grip and pull for full power in the worst, wettest going. Firestone S/F (Shock-Fortified) cord shrugs off damaging impacts. And Firestone's unique tread design bites into soft ground, yet comes out *clean*.

See your Firestone Dealer or Store and find out how Firestone tractor tires give you extra service at no extra cost. Check on all the extra advantages of Firestone's famous line of tractor tires. And remember—Firestone's Free New Tire Loaner Service keeps your equipment rolling while your old tires are retreaded or repaired.

CHAMPION SINGLE RIB GUIDE GRIP*

Especially built for the extreme mud conditions found in rice and cane fields.

*FIRESTONE T.M.

ALWAYS A YEAR TO PAY

Firestone

BETTER RUBBER FROM START TO FINISH

Enjoy the Voice of Firestone on ABC television every Monday evening.

Copyright 1959, The Firestone Tire & Rubber Company

Firestone Rubber-X formulas are specially compounded for farm tires.

TO BEAUTIFY THE PREMISES, Jim Wells of Auburndale recently planted many pine trees around his 5,000 bird cage operation. He maintains poultrymen would be less likely to be run out of the community if they made their farms more attractive and kept down offensive odors.

Efficiency is the Keynote of Auburndale Operation

THE COMMON BELIEF of many poultrymen that 6,000 to 10,000 birds are necessary to make a comfortable living for a family is fast being disproved by Florida's number one poultryman.

Jim Wells of Auburndale, president of Florida Poultry Producers Association, has a 5,000 layer cage operation. And from this, his family of ten *and* a foreman's family of six are living comfortably.

The fact that two families make their livelihood from 5,000 layers is only part of the story. The remaining part is that Wells knows what it takes to produce a top quality egg; furthermore, he has perfected his operation so as to preserve virtually every ounce of quality the egg had in it when laid.

Lastly, he is vitally interested in the consumer being pleased with his eggs to the extent they will prefer his product to out-of-state eggs the next time they buy.

In addition to producing the best egg he knows how to produce, he keeps the farm free of flies and odors which frequently cause operations of this type to be pushed out of the community. He has planted trees around his farm and between the rows of houses in order to beautify the premises.

Many practices not found on the average poultry farm are responsible for Wells' efficiency:

He keeps records on every bird. When a bird has been laying 12 to 15 months, she is checked for egg quality.

A portable egg candler is carried along and used as the eggs are gathered, and any bird showing off-quality eggs goes to the market.

(Continued on Next Page)

FOR SALE

Poultry Manure Compost

THAT HAS BEEN GROUND ON A ¼" HAMMERMILL SCREEN.

We offer two types:

1—From hen houses where hens have been on shavings for 12 months or more. This will be at least 80% pure manure.

2—From under cage layers and this will be as near 100% manure as possible.

WE HAVE 2,000 TONS PER YEAR.

WRITE OR PHONE

FLORIDANDEE POULTRY FARMS Inc.

Route 4 Box 563—Ph. SP 1-2064
Jacksonville 10, Florida

DEKALB SCIENCE

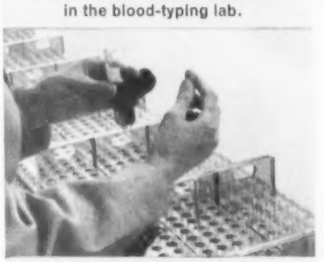
can turn Blood Cells into EXTRA Dollars for you!

DeKalb's Blood-typing pinpoints desirable traits in Parent lines

An exacting new science has been put into high gear in DeKalb's poultry laboratories. This new, modern approach to creation of even better DeKalb Chix is BLOOD-TYPING . . . the ingenious project of Dr. W. E. Briles who joined the DeKalb staff in 1957 after pursuing the same line of research at Texas A. & M. College. Blood-typing is another long stride forward by DeKalb in a never-ending search for better and better layers for poultrymen. Even though DeKalb Chix are right up among the top at this time, so far as egg production, uniformity, feed conversion and livability are concerned, DeKalb blood-typing promises even greater performance from the DeKalb Chix of the future. The practical and proven theory of "like tends to beget like" still applies . . . the only difference being that, through DeKalb blood-typing, even greater selectivity of breeding stock is possible . . . thus purifying DeKalb Chix even further for the genetic factors that spell GREATER PROFITS for you.

Dr. Briles holds an inbred male that has been blood-typed.

These technicians are kept busy in the blood-typing lab.



The reaction of blood with reagents segregates the types.

What DeKalb Blood-Typing Promises

1. **Increased Egg Production.**
2. **Better Livability in both Chix and Adults.**
3. **Faster Growth.**

SEE YOUR DEKALB DEALER FOR DEKALB CHIX

Or One of These DeKalb Associate Hatcheries:

Henry F. Smith Farm & Hatchery, Hilliard

Florida Hen Ranch, Ft. Lauderdale

Tri-States Hatcheries, Inc., Graceville

Brandenburg Hatchery, Dunedin

Rodriguez-Brandenburg Hatchery, Havana, Cuba

Check-R-Board, Palatka

DEKALB AGRICULTURAL ASS'N., INC., DEKALB, ILLINOIS

Commercial Producers and Distributors of DeKalb Seed Corn, DeKalb Chix and DeKalb Hybrid Sorghum

Keynote: Efficiency *(Continued from Page 45)*

Thin and other mal-formed egg shells, Wells points out, are also indications that the internal quality is imperfect.

Birds are fed only the feed they will clean up. Feed troughs are only partially filled to eliminate waste.

Drinking water is controlled by an electrical switch. The solenoid switch which controls the water cuts it on for 15 minutes and off for a similar time. The off and on flow of water keeps the feed particles and other dirt which may get into the trough washed out.

Watering troughs are sloped to allow a continuous flow of water. These troughs require weekly cleaning only.

A rigid fly control program is followed 12 months in the year. Bait is out at all times to kill off straggler flies before a build-up in population occurs.

Replacement chicks are bought in batches of 900 every 60 days. By following this procedure, he keeps a normal flow of eggs the year round.

One of the two known egg sanding machines in Florida is on Wells' farm. He points out that eggs cleaned by sanding retains the original oil Mother Nature gave them and remain top quality longer than washed eggs.

Every egg is candled as it goes into the machine, and again as it leaves the sander. In other words, no bad eggs leave his farm.

Imperfect eggs are sold as such. They are never put in cartons as table eggs.

Wells sells his eggs to a large grocery chain with stores in Lakeland, Winter Haven and Auburndale. In order to get established in these stores, he had to begin by selling at the same price as shipped in eggs.

Once his product became known and the housewife began demanding local eggs over those from out of state, he was permitted to sell at a premium over competition. He now enjoys a premium of five to 10 cents per dozen over shipped eggs.

The poultryman has a standing agreement with the stores handling his eggs whereby any customer who complains about the quality of his eggs will get double their money back. Any customer finding a dozen eggs underweight gets a dozen free.

Thus far, there have been no complaints on either quality or weight.

Wells is very optimistic about the future of the poultry industry in Florida. He believes that Florida producers should only fear themselves. He maintains:

If every poultryman will produce and market a better product, competition from other states can not touch him.

Florida production has slipped percentage-wise in the local market. State poultrymen may have to

THE GEM OF THE POULTRY INDUSTRY
the GHOSTLEY Pearl

This season we offer you the new and already famous Ghostley Pearls. This is a 3-way Strain Cross, bred for quality eggs, large eggs and high production over a longer period. They reach large egg size after 6 to 8 weeks of lay. You will be getting premium price when others are selling pullet and medium size eggs. Please order early.

VOSCINAR POULTRY FARM

Brooksville (Masaryktown), Florida

now...AUTOMATIC RE

with new Ful-O-Pep

After 5

new, co

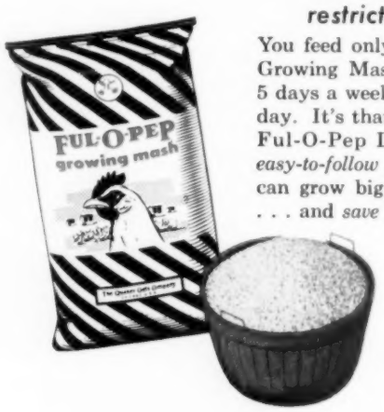
FUL-O-PEP DEVELOPED RESTRICTED FEEDING PLAN 22 YEARS AGO

Proved by over billion birds

The famous Ful-O-Pep Restricted-Feeding Plan which was originated by the late Dr. O. B. Kent in 1936, has been thoroughly tested and improved over the years by Ful-O-Pep research. It is now being used profitably on hundreds of leading poultry farms throughout the country. Many universities are also studying and recommending restricted feeding for growing pullets.

Plan still sound—saves 40¢ feed cost per bird

You buy only 2 lbs. Ful-O-Pep Chick Starter—5 lbs. Ful-O-Pep Growing Mash per bird on range on the Ful-O-Pep Restricted-Feeding Plan. You save up to 8 lbs. total feed per bird, over forced-feeding plans, or about *40¢ per bird* . . . yet grow big, thrifty pullets!



Built especially for restricted feeding

You feed only 5 lbs. Ful-O-Pep Growing Mash per 100 birds—5 days a week. Feed oats every day. It's that simple! Ask your Ful-O-Pep Dealer about this *easy-to-follow plan*—so you, too, can grow big, profitable pullets . . . and *save about 40¢ per bird!*

ADDED

meet the price of competitors to get the public eating local eggs—and to keep them eating the local product.

"My eggs are eaten before out-of-state eggs are collected for shipping," Wells declares. He adds:

"By good management, local farmers can out-perform out-of-state competition when it comes to freshness and high quality. These are the important weapons we have to use."

Pest Control

(Continued from Page 44)

Sulfur should be used in groves that have a history of broad mite injury because zineb does not control this mite.

Red Spider Control: Purple mite and to a lesser extent, Texas citrus mite will be numerous during the post-bloom period with maximum populations in May and June. This outbreak can be prevented in most groves by the use of oil emulsion or Tedion (Tedion should not be used on fruit of any size) in the post-bloom spray. Other miticides such as Systox, Kelthane, or Trithion cannot be expected to last from post-bloom until time to aply the summer scalicide. Unless oil or Tedion can be used, it is not currently practical to attempt purple mite control with a post-bloom spray unless soil moisture is extremely low. Although uncontrolled purple and Texas citrus mite feeding will severely dull citrus foliage, it will rarely cause a leaf drop at this time of the year in healthy groves as long as soil moisture is good.

Six-spotted mite may become injurious in a few groves. This mite may be controlled with the materials used for purple mite, but more thorough coverage is needed for satisfactory results.

Recommended Post-Bloom Spray Programs: The best control of citrus pests is obtained by using sprays that are designed for the problems of each individual grove and then applied at the best time. Many owners of small acreages do not have resources to carry out such a program. For those who are in this position, the following simplified sprays are suggested for use after bloom.

Parathion 15W,
1.7 pound/100 gallon
Zineb, ½ pound
or
Parathion 15W,
1.7 pound/100 gallon
Neutral Copper
(0.75 pound metallic copper)
Wettable Sulfur,
10 pounds

Details of spray schedules and the various materials used will be found in the "Better Fruit Program" and this should be consulted to determine which materials may or may not be combined. For further information, consult the Citrus Experiment Station at Lake Alfred or Fort Pierce.

STRICTED FEEDING

Pullet Developer!

years of testing, Ful-O-Pep introduces
mplete, controlled-energy feeding plan

Grow pullets fit . . . not fat!

Here it is! . . . a new revolutionary feeding plan for rowing pullets. Now you can enjoy the simplicity nd labor-saving advantages of full-feeding your pul-ets and still receive the benefits of the famous Ful-O-Pep Restricted-Feeding Plan. Feed your pullets new Ful-O-Pep Pullet Developer . . . a great, new, com-lete feed that *automatically controls* the energy or alorie intake of your birds . . . helps you grow uni-orm, well feathered birds with *sound, sturdy* bodies.

Birds mature before being forced into production—lay more eggs

On the new Ful-O-Pep Plan, pullets are not forced to ay prematurely . . . are allowed to *develop normally nd fully* before they are brought into egg production. As a result, 5 to 10% more pullets are housed and they *ay good-sized eggs* right from the start. What's more, esearch shows that pullets fed new Ful-O-Pep Pullet Developer laid an average of *20 more eggs per bird* than pullets full-fed on a conventional growing ration.

Peak production higher—mortality less!

Yes, Ful-O-Pep Pullet Developer grows *big-bodied,* fully matured pullets capable of *heavy, continuous laying and long laying life.* Production peaks in tests were as much as 3% higher . . . total lay higher, too. Many poultrymen report about 5% less mortality in the hen house with Ful-O-Pep grown birds.

Plan fool-proof . . . saves labor!

No special knowledge or equipment is required with Ful-O-Pep's new Automatic Restricted-Feeding Plan. And less work is involved because it's a once-a-day or self-feeding operation. Just switch your pullets to Ful-O-Pep Pullet Developer after they have consumed 3 pounds of Chick Starter and keep 'em on it until birds are ready to be housed—then switch to the regular Ful-O-Pep production feeds. It's that easy! It's low in price, too!

NUTRITIONAL STRENGTH IN FUL-O-PEP FEEDS

Starts baby chicks fast!

Give your baby chicks the *extra growth power* they need to *grow sound, sturdy* bodies and *strong, rugged* bones. Start em on new, nutritious Ful-O-Pep Chick Starter. It grows chicks fit . . . not fat! Only 3 pounds per chick is needed to grow 'em big and healthy, to give your chicks a super start in life!

Grows healthy rugged pullets!

Ful-O-Pep grows big-bodied, *fully matured* pullets—pullets that *lay to the limit!* And, with Ful-O-Pep *you get the nutrients you pay for* . . . you get added nutritional strength! So, see your Ful-O-Pep Dealer today. Ask him for all the details about Ful-O-Pep's new, Automatic Restricted-Feeding Plan.

NEW!

FUL-O-PEP

made by The Quaker Oats Company

THE 1956-57 RETURNS ARE IN AND K-137

KimberCHIKS®

RANK THEM ALL IN NET INCOME

K-137 Kimberchiks were entered in five Random Sample Tests last year that report income figures: Calif., Tenn., and Utah on basis of income over feed cost, and Mo. "B" and N. Y. C. on income over feed *and chick* cost.

Among nationally sold chicks entered in at least three out of these five contests, K-137 Kimberchiks not only ranked first but placed more consistently than any of the others.

For more details about K-137's please send for this

FREE 16 PAGE BOOKLET

WE ALSO HAVE STARTED PULLETS.

BLOOMINGDALE POULTRY FARM & HATCHERY

Rt. 2, Box 374 Valrico, Fla.
Tel. Tampa 49-3054 - 49-1033

THIS IS WHY the best growers use GULF Fertilizer

Gulf Horticultural Adviser L. R. McLain and Mr. Joe Knight are shown discussing some of the current requirements of the 150-acre Sans Souci groves of Elfers. Florida growers and farmers depend on "Mac's" know-how in their problems concerning soil conditioning, fertilization and pest control. And, for best yield, growers depend on Gulf Fertilizer —formulated for Florida soils.

THE GULF FERTILIZER COMPANY
Tampa, Florida

FRIENDLY GULF FERTILIZERS and pesticides

SERVING FLORIDA AGRICULTURE FOR 55 YEARS

TUMACO TREE BANKER and DITCHER

Are You Prepared For This Fall and Winter?

SAVE YOUR YOUNG TREES
SAVE ON LABOR

- Banks 10 trees per minute
- Uses moist, clean dirt, and builds any size bank.
- Has proven record of 10 years service

ONLY 50 MACHINES AVAILABLE THIS FALL

For Information and Demonstration, contact
EXCLUSIVE FLORIDA DISTRIBUTOR

MEINCKE
SPREADER WORKS, INC.
DEPT. C — ASTATULA, FLA. PHONE: TAV. DIAMOND 3-7601

Field Crop Guide *(Continued from Page 35)*

grown, and the results of studies on a similar soil-crop combination, should be considered in planning the fertilization program.

Development of fertilization programs for Florida field crops necessitates the consideration of the kinds of crops to be grown and their nutrient requirements. It also necessitates consideration of the kinds of soil on which the crops are to be grown and the abilities of the soils to retain and supply water and nutrients to the growing crops.

All this involves the determination of the amount, kind, placement, time and frequency of fertilizer applications required for economical production of high yields.

General recommendations for fertilization of Florida field crops on different kinds of soil and under various related conditions are presented in tables 1, 2, and 3, and discussed below.

Recommendations given are based on the assumption that adequate quantities of the proper kind of limestone have been applied, and that other good soil and crop management practices will be followed.

Suggestions for amounts on mineral soils that are not naturally phosphatic are based on the assumption that opportunity for build up of available phosphorus has been provided, either by annual applications of mixed fertilizers containing phosphorus over a period of several years, or through preplanting applications of phosphatic materials to virgin soils. The naturally phosphatic sandy loams and loamy sands of central and northeastern Florida should be treated as sands.

The nitrogen side-dressing for corn and cotton should consist of a single application. That for annual grasses, other than corn and pearlmillet, should be split into two applications. And that for pearlmillet may be double the rates recommended and split into four applications.

Nitrogen side- or top-dressings for annual grasses and cotton may be

TABLE 2

SUGGESTED GRADES AND AMOUNTS OF FERTILIZER FOR NON-LEGUMINOUS FIELD CROPS ON MINERAL SOILS

Crop	Soil Texture	Moisture Capacity	Basic Application Grade and Lbs./A.	Supplementary Application Kind and Lbs./A.
	Sandy Loam	Good	8- 8- 8 (600)	Nit. (48)
	Loamy Sand	Good	8- 6- 8 (600)	Nit. (48)
		Fair	8- 6- 8 (500)	Nit. (40)
Perennial Grasses	Sand	Good	10- 5-10 (480)	Nit. (48)
		Fair	10- 5-10 (400)	Nit. (40)
		Poor	10- 5-10 (320)	Nit. (32)
	Sl, Ls, Sand	Good	8- 8- 8 (600)	Nit. (48)
		Fair	8- 8- 8 (500)	Nit. (40)
		Poor	8- 8- 8 (400)	Nit. (32)
	Sandy Loam	Good	5-10-10 (600)	Nit. (60)
	Loamy Sand	Good	6- 9-12 (500)	Nit. (60)
		Fair	6- 9-12 (417)	Nit. (50)
Annual Grasses	Sand	Good	6- 6-12 (500)	Nit. (60)
		Fair	6- 6-12 (417)	Nit. (50)
		Poor	6- 6-12 (333)	Nit. (40)
	Sl, Ls. Sand	Good	4-12-12 (500)	Nit. (70)
		Fair	4-12-12 (400)	Nit. (56)
		Poor	4-12-12 (300)	Nit. (42)
	Sandy Loam	Good	5-10-10 (720)	Nit. (36)
	Loamy Sand	Good	6- 9-12 (600)	Nit. (36)
		Fair	6- 9-12 (500)	Nit. (30)
Cotton	Sand	Good	6- 6-12 (600)	Nit. (36)
		Fair	6- 6-12 (500)	Nit. (30)
		Poor	6- 6-12 (400)	Nit. (24)
	Sl, Ls, Sand	Good	4-12-12 (600)	Nit. (48)
		Fair	4-12-12 (500)	Nit. (40)
		Poor	4-12-12 (400)	Nit. (32)
	Loamy Sand	Good	3- 9- 9 (1000)	3-9- 9 (1000)
		Fair	3- 9- 9 (900)	3-9- 9 (900)
Flue-Cured Tobacco	Sand	Good	4- 8-12 (750)	4-8-12 (750)
		Fair	4- 8-12 (675)	4-8-12 (675)
		Poor	4- 8-12 (600)	4-8-12 (600)
	Ls, Sand	Good	3- 9- 9 (1000)	3-9- 9 (1000)
		Fair	3- 9- 9 (900)	3-9- 9 (900)
		Poor	3- 9- 9 (800)	3-9- 9 (800)

reduced by 50 % or omitted if the crop follows a good growth of a leguminous cover crop.

All mixed fertilizers should contain the necessary minor elements in the proper quantities. If minor elements are not needed, substitution on the basis of equivalent quantities of phosphorus and potash may be made as follows: 0-15-10 for 0-12-8; 0-14-14 for 0-12-12; 0-12-18 for 0-10-15; 0-11-22 for 0-10-20; and 0-9-27 for 0-8-24.

The recommended grades of complete fertilizer (those that contain nitrogen, phosphorus and potash), are such that any minor elements that may be needed can be included without resorting to use of the more concentrated sources of phosphorus.

Fertilizers for flue-cured tobacco should contain 2% soluble magnesium (MgO) not more than 2% chlorine, and not less than 25% of the nitrogen in nitrate form.

In some locations, some of the recommended grades may not be readily available. Provision is made for substitution of commonly available grades:

For example,, 8-8-8, 8-6-8 and 10-5-10 are recommended for perennial grasses on sandy loam, loamy sand and sand, respectively. If 8-6-8 and 10-5-10 are not available, 8-8-8 may be substituted as indicated in the last section on perennial grasses, Table 2.

Similarly, provision is made for substitution of 4-12-12 for 5-10-10, 6-9-12 or 6-6-12 for annual grasses and cotton; and for substitution of 3-9-9 for 4-8-12 for flue-cured tobacco.

Placement and timing of fertilizer applications are important. Some of the principles that govern fertilizer placement are listed below and suggestions regarding placement and timing of fertilizer applications are outlined.

Adequate quantities of plant nutrients in correct balance within the root zone, in addition to optimum moisture, proper aeration, and other favorable conditions, are necessary for maximum yields.

Early stimulation of the seedling is usually advantageous. Thus, at least part of the fertilizer should be placed within reach of the young seedling roots.

Soluble fertilizers go into solution in moist soil and move. The rate and distance of movement depend upon the chemical nature of the fertilizer materials and upon the character of the soil. They may move upward during dry periods and may be carried downward by rain or irrigation water.

Nutrient elements, when in dry soil, are of little or no benefit to the plant.

Excessive concentration of fertilizer in contact with seed, roots or legume inoculant may be injurious.

Water-soluble fertilizers of relatively low plant food content have a greater salt content per unit of plant food and a greater tendency to produce salt injury than do equal amounts of plant food in the more concentrated materials.

Because nitrogen and potash carriers are more readily soluble than phosphatic fertilizer materials, they cannot be safely concentrated in as large amounts near seed or plant roots.

Leaching is greater from sandy soils low in organic matter than from soils of heavier texture or with higher organic matter content.

Progressive fixation of phosphorus by the clay fraction of soils continues to diminish its availability for a considerable period after phosphatic fertilizers are applied to heavy textured soils.

Except in acid sandy soils, phosphates move slowly from the point of placement. Therefore, phosphatic materials should be placed where they will be readily reached by plant roots.

Placement of fertilizer in bands reduces contact with the soil, lessening the fixation of phosphorus.

(Continued on Page 50)

TABLE 3

SUGGESTED GRADES AND AMOUNTS OF FERTILIZER FOR LEGUMINOUS FIELD CROPS ON MINERAL SOILS AND FOR ALL FIELD CROPS ON ORGANIC SOILS

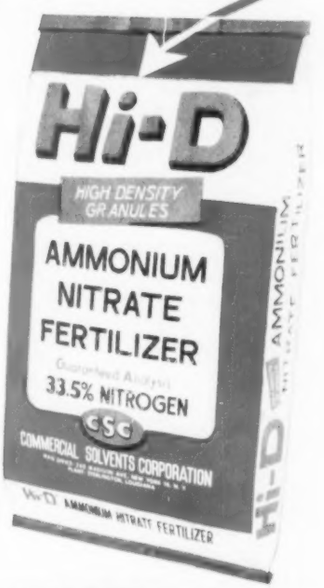
Crop	Kind of Soil	Moisture Capacity	Grade and Lbs./A.
	Mineral Soils		
	Sandy Loam	Good	0-12-12 (600) or 0-10-15 (720)
Clovers	Loamy Sand	Good	0-10-15 (600) or 0-10-20 (600)
		Fair	0-10-15 (500) or 0-10-20 (500)
	Sand	Good	0-10-20 (480) or 0- 8-24 (600)
		Fair	0-10-20 (400) or 0- 8-24 (500)
	Mineral Soils		
	Sandy Loam	Good	0-12-12 (500) or 0-10-15 (600)
Other Legumes	Loamy Sand	Good	0-10-15 (500) or 0-10-20 (500)
		Fair	0-10-15 (400) or 0-10-20 (400)
	Sand	Good	0-10-20 (400) or 0- 8-24 (500)
		Fair	0-10-20 (320) or 0- 8-24 (400)
		Poor	0-10-20 (240) or 0- 8-24 (300)
	Organic Soils		
	Virgin Soil	Good	0- 8-24 (600) or 0-10-20 (600)
All Field Crops	Next 3 yrs.	Good	0-10-20 (500) or 0-10-15 (600)
	Sub. years	Good	0-12-12 (500) or 0-12- 8 (600)

Bags of mixed fertilizer containing Hi-D are loaded on a citrus grower's truck.

GOOD MIXED FERTILIZERS NOW MADE BETTER with

Hi-D

Practically all fertilizer manufacturers in Florida now use Hi-D in their mixed goods because *there is no other ammonium nitrate like it!* Hi-D is made by an exclusive *patented* process which results in special-shape *granules* that assure the most accurate and even distribution of nitrogen throughout the mix. Strong and of high density, Hi-D granules resist break-up during handling. Hi-D is super dry, too. It stays dry longer—in storage, in handling, and in the field, even on hot, sticky days.



Hi-D Ammonium Nitrate is unloaded from a freight car and put in storage. Hi-D stores extremely well. And Hi-D does not gum-up, won't clog, cake or bridge. It always flows freely.

Hi-D is dumped into an elevator on its way to being incorporated in a mixed fertilizer. Mixed goods containing Hi-D furnish the grower both *nitrate* and *ammonia* nitrogen—the two key types that all crops do best on. In mixed goods—there is no other ammonium nitrate like Hi-D.

COMMERCIAL SOLVENTS CORPORATION CSC
344 Williams St., N. W., Atlanta 8, Ga.

Good Plans for GOOD BUILDING

By T. C. SKINNER
Extension Agricultural Engineer
Florida Agricultural Extension Service

Self Feeders for Cattle

"How to provide for economical and supplemental feeding of cattle on pasture?" is a question asked by many Florida cattlemen. The use of durable, well-designed self feeders, which will hold several days' supply of feed, is the answer.

Particularly in situations where cattle are in several pastures and where feed has to be hauled long distances, self feeders are real time and labor savers. Both of these factors are of great importance to the cattleman.

Shown here is a self feeder that is simple and economical to build. And it will hold over 100 bushels of ground feed.

It is mounted on skids so that movement from one area to another is no problem. The skids and other lumber near the ground should be treated.

Conveniently located in each end is a door, so that the feeder can be filled from a self unloading wagon or trailer or it may be filled by hand with a minimum of lifting.

Also available are plans for a self feeder mounted on wheels. This feeder is more easily transported and lends itself to filling at the point where the feed is mixed, thus eliminating the need for self unloading wagons or filling by hand. The feeder can be filled at the mixer, then easily and quickly carried to the field.

Plans for the feeder shown here and also for the feeder mounted on wheels may be obtained through your local county agent or by sending your request to the writer.

Ask for Extension Plan 5083 or Extension Plan 5776. Plan 5776 is of the feeder mounted on wheels; 5083 is mounted on skids.

" " "

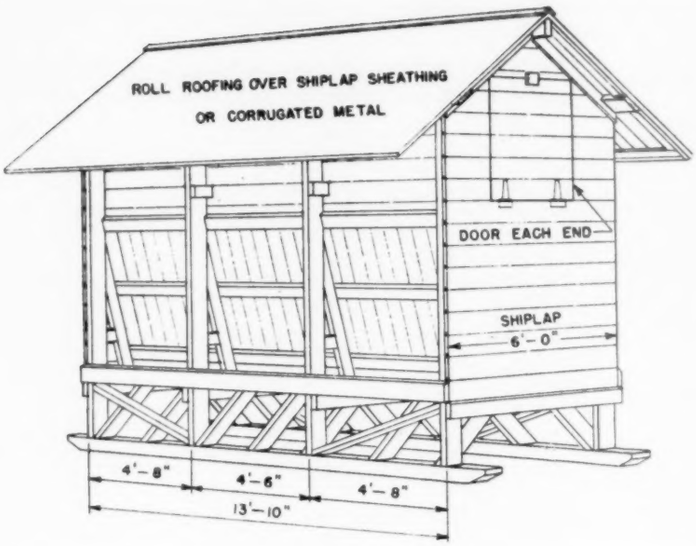
"It is a mistake to think that the primary job of education is to make people happy. The job is to teach people to think."
Prof. Malcolm P. McNair

" " "

Fun is like insurance. The older you get, the more it costs.

" " "

For a man to be henpecked, he has to be a little chicken.



Field Crop Guide *(Continued from Page 49)*

For corn, sorghum and pearlmillet, the fertilizer applied at planting time should be placed in continuous bands to either one or both sides of the seed row and 1 to 2 inches below the seed level. On mineral soils, additional nitrogen should be applied as a side-dressing.

Placement of the side-dressing material may be at any point between the rows that is most convenient. But the material should be covered with soil without undue disturbance of the plant roots.

The side-dressing for corn and sorghum should be applied as a single application 5 to 6 weeks after planting.

Nitrogen side-dressing for pearlmillet should be double the rate recommended for annual grasses in Table 3, and split into four equal applications of intervals of 5 to 6 weeks during the growing season.

On cotton: the fertilizer applied during the planting operation should be placed in narrow bands approximately 2½ inches to either one or both sides of the seed row and to to 2½ inches below the level of the seed. The nitrogen side-dressing should be applied when the plants are 8 to 10 inches high.

For flue-cured tobacco, one-half to two-thirds of the fertilizer should be applied at planting time, in continuous bands 3 to 4 inches to each side of the plant row and 1 to 2 inches below the crown of the transplant. The remainder of the fertilizer should be applied as a side-dressing 3 to 6 weeks after plants are set in the field.

With peanuts, soybeans and row plantings of cowpeas, the fertilizer should be applied at planting time. 3 to 4 inches to each side of the seed row and 2 inches below the seed level.

Fertilizer for lupines should not come in contact with the inoculated seed. It should be applied with a grain drill at a depth of 3 to 4 inches prior to planting of seed, which should be done in a separate operation.

Fertilizer for broadcast plantings of most other annual legumes should be applied in a manner similar to that described for lupines.

For oats, rye, wheat and ryegrass, the fertilizer and seed may be drilled simultaneously, with separate spouts for seed and fertilizer being preferred. The nitrogen side-dressing should be split into two equal applications. The first should be applied as soon as stand is established; the other in late January or early February.

The fertilizer for establishment of pasture should be applied with a grain drill or similar equipment, either before or at the time of planting. This method is especially recommended for planting on heavy soils, to reduce phosphorus fixation.

On sandy soils, the fertilizer may be broadcast and disked into the soil prior to planting of seed or at time of planting vegetative material.

Fertilizer for maintenance should be applied with a grain drill or similar equipment or as a broadcast top-dressing. For maintenance of winter legumes, the fertilizer should be applied in October or November, or as soon as new seedlings appear.

For maintenance of grass pasture, the complete fertilizer should be applied in early spring, and the nitrogen top-dressing in late summer or early fall.

If more forage from grass pasture is needed, two applications of complete fertilizer and two of nitrogen may be made alternating complete fertilizer with nitrogen at intervals of 60 days, beginning in late February or early March, and ending in late August or early September.

PRUDEN FRAMED BUILDINGS

The above building 60' x 96' may be yours for approximately $1.10 per sq. ft. Other sizes available.

For Information Call
J. B. Scott at

VILLA LUMBER, INC.
WINTER HAVEN, FLA. CY 3-4185

SUPERIOR
FERTILIZER AND CHEMICAL COMPANY
FERTILIZERS AND INSECTICIDES THAT ARE SUPERIOR
Factories and Offices: TAMPA and FORT PIERCE, FLORIDA

Good looks never carried so much weight!

Meet Chevrolet's all-new El Camino—sporting the trim Slimline design of the '59 passenger car along with the payload capacity of a pickup. Here's a hard-working hand that takes you to town in style!

How about those lines . . . and that load space! El Camino stands out as the best-dressed worker that ever took to the road. Rides and handles like a passenger car. Has a new finish that needs no wax or polish for up to three years. Yet it hauls and hustles like the workingest thing on wheels.

You can have V8 power, or a new Hi-Thrift 6 that cuts gas costs as much as 10%. There's a choice of four transmissions to fit your needs including smoother-than-ever Turboglide*. On the business end of El Camino you've got a sturdy, spacious pickup box and solid ribbed-steel load platform. With its dual personality, El Camino is ready for just about anything! At your Chevrolet dealer's now. . . . Chevrolet Division of General Motors, Detroit 2, Michigan. **Extra cost option.*

BEST YET OF THE BEST SELLERS!

CHEVROLET

TENNESSEE CORPORATION

Fungicides and Agricultural Chemicals

Control FUNGUS DISEASES

Tri-Basic COPPER SULFATE

A chemically stable copper fungicide containing not less than 53% metallic copper . . . for spraying or dusting truck and citrus crops. Especially effective in controlling persistent fungus diseases through application of Tri-Basic Copper Sulfate before fungus attacks.

COP-O-ZINK *(A Neutral Copper-Zinc Fungicide)*

For disease control and prevention. Particularly effective on potatoes. Also on many vegetable and fruit crops. Cop-O-Zink is excellent for correcting Copper and Zinc deficiencies and for stimulating plant growth. Contain 48% Copper and 4% Zinc. Applied to foliage in spray or dust form.

There's a TC product to correct most nutritional deficiencies and TRI-BASIC COPPER SULFATE to prevent and control certain persistent fungus diseases.

Correct NUTRITIONAL DEFICIENCIES

NU-IRON (Nutritional Iron)

A neutral Iron compound containing 30% Iron as metallic. Chelated Iron 10% as metallic—applied to foliage of plants for correction of Iron deficiencies.

NU-Z (Nutritional Zinc)

Nu-Z contains 52% metallic zinc. Applied directly to the plant in spray or dust form . . . stimulates plant growth and corrects zinc deficiencies.

NU-MANESE (Manganous Oxide)

An extremely effective nutritional manganese product for correcting manganese deficiencies due to low manganese content of the soil . . . applied as a spray or dust to the foliage, direct broadcast to the soil or in mixed fertilizers.

ES-MIN-EL

The **ES**sential **MIN**eral **EL**ements — contains Manganese, Copper, Iron, Zinc, Boron and Magnesium, all essential to healthy, productive soil. Fruits and vegetables rich in vitamins cannot grow in soil poor in minerals. For soil application. Es-Min-El in spray or dust form for direct application to the plants is also available. Contains nutritional Manganese, Zinc and Copper.

WE WILL CUSTOM MIX MINERAL MIXTURES TO YOUR OWN SPECIFICATIONS IN LARGE OR SMALL QUANTITIES.

T-C DUST MIXTURES

Tennessee's Nu-Z, Nu-Iron, and Tri-Basic Copper Sulfate are especially suited for use in preparing nutritional and fungicidal spray and dust mixtures.

For information on These Nutritional Products, Write, Wire or Phone Us.

TENNESSEE CORPORATION

617-29 Grant Building, Atlanta, Georgia